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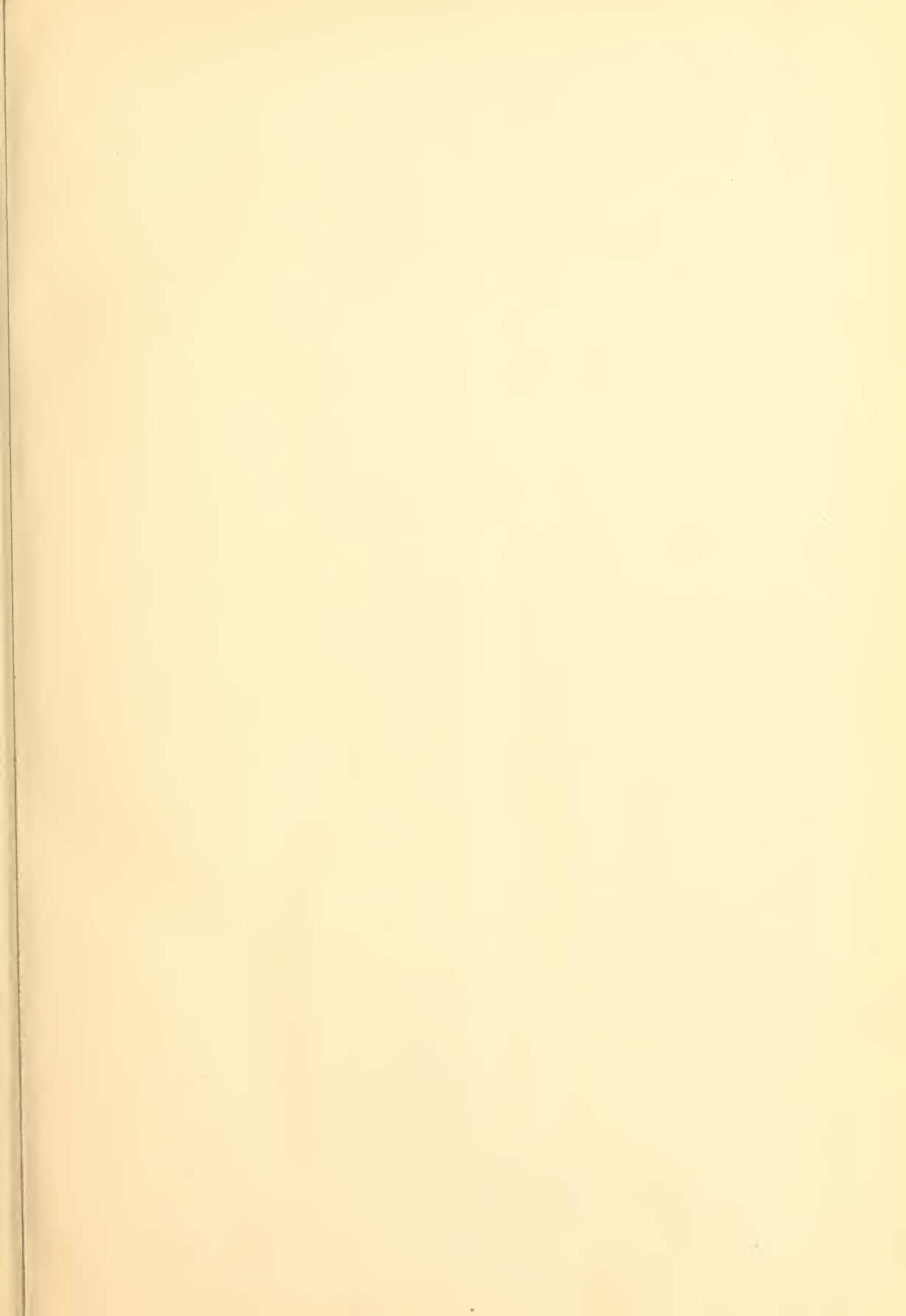


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THE MEDICAL AGE

A SEMI-MONTHLY JOURNAL OF

MEDICINE AND SURGERY

DOCTOR G. ARCHIE STOCKWELL, F.Z.S.,
EDITOR.

VOLUME XIV



DETROIT, MICHIGAN,
GEORGE S. DAVIS, PUBLISHER
1896

APR 22 1897

BOOK 30
70
APR 1967

AUTHORS' INDEX.

ALDEN, C. H.: Instruction of Hospital or Ambulance Corps in the United States and State Services.....	449	FOURNIER, Professor: Syphilitic Infection of and by Medical Men.....	139
ARNOLD, W. F.: War-time Experiences in Northern China.....	577	FRANKSON, BENJAMIN: Palliative Treatment of Inguinal Hernia.....	526
A SUFFERER: Periodic Autumnal Catarrh—Hay Fever.....	513	GILDEA, P. V.: Infiltration of Larynx.....	162
BAEZA, C. E.: Unique Case of Traumatic Aneurysm.....	193	GORDON, P. A.: Typhoid Fever—History of a Recent Epidemic.....	4
BAILEY, A. L.: Superfoetation and Superfecundation.....	460	HALL, J. M.: Functional Cardiac Disease.....	134
BEACH, WM. M.: Special Forms of Rectal Fistulæ.....	620	HANSEMAN, DAVID: A Rare Case of Addison's Disease.....	294
BEHRENS, B. M.: The Rhinoscope in General Practice.....	716	HEATH, F. C.: Some Sequelæ of La Grippe.....	8
BELL, A. L.: The Influence of a Previous Sire.....	321	HENRY, LOUIS: Suggestions regarding the Management of Typhoid Fever.....	259
BERRY, JOHN J.: The Physical Basis of Crime.....	72	HITCHCOCK, CHARLES W.: Brain Surgery—Report of a Case.....	551
BEYER, HENRY G.: Physiology of Bathing and Swimming.....	545	HOEIZL, Dr.: Intestinal Obstruction by Gallstones.....	492
BLAIRLOCK, W. R.: A Case of Hæmatemesis.....	577	HOFF, JOHN VAN R.: What is the Most Practicable Plan of Sanitary Organization for Active Service in the United States Army?.....	353
BLAND, W. J.: A Case of Leukæmia.....	45	HOLMES, J. B.: Some Surgical Cases.....	170
BLOOM, I. N.: Lactic Acid in Epithelioma of the Face.....	132	HOLMES, T. K.: Puerperal Convulsions.....	65
BOWEN, F. J.: Typhoid Fever.....	108	HOMER, VICENTE TORRES: Typhoid Fever.....	609, 641, 674
BOYD, MONTAGUE L.: Some Surgical and Gynecological Cases.....	428	JACKSON, J. A.: Hygiene of Adolescence.....	742
BRITTAIN, F. B.: Urethral Caruncle.....	392	KITTSO, E. J.: Some Peculiar Cases.....	268
BROUILLETTE, P. L.: The Therapy of Antipyretics.....	708	KLINE, L. P.: The Therapeutics of Sciatica.....	427
BULLITT, JAMES B.: Concerning Movable Kidney.....	329	KUTTNER, A.: Local Treatment of Laryngeal Phthisis.....	194
CARSTENS, J. H.: Abdominal Section for Diagnostic Purposes Only.....	420	LATHROP, W.: Lithæmia.....	200
CARTER, WM.: Therapeutics, New and Old.....	645	LEECH, W. STUART: Prolongation of Life by Electricity.....	295
CARTLEDGE, A. M.: Enormous Angioma.....	236	Should We Quarantine?.....	203
Meckel's Diverticulum.....	263	MACDONALD, ALBERT A.: Occipito-posterior Positions.....	417
CLOPTON, A. J.: The Therapeutics of Exercise.....	166	MCALLISTER, J. C.: Auto infection.....	740
COLEMAN, P. C.: Tetanus, with Report of a Case.....	164	MCGRAW, E. B.: Danger in the Barber Shop.....	740
COOPER, ST. CLOUD: Relief of Impermeable Organic Stricture of the Urethra.....	364	MCINTYRE, A. S.: A Case of Atropine Poisoning.....	142
COPE, C. S.: Some Things Found Helpful in Obstetrics.....	425	McKENNAN, H.: Foreign Body in Tongue.....	44
COULTER, J. HOMER: Empyema of Antrum.....	40	MANTON, W. P.: Wound-closure in Abdominal Surgery.....	292
CUTTER, EPHRAIM: A Masquerade of Fatty Degeneration—Amyloid.....	589	MAPES, C. C.: Criminal Abortion or Fœticide.....	677
Systemic Treatment of the Eye, with Description of a New Mode of Examination.....	385	Higher Enlightenment.....	462
The Pre-asthmatic State.....	481	Higher Enlightenment versus Age of Consent.....	105
What Made the Cures?.....	555	Prostitution.....	614
DENIS, Dr.: Apopl in Tertian Intermittents.....	264	Remarks from the Standpoint of Sociology.....	713
DOTSCHESKI, Dr.: The Direct Action of Digitalis on the Central Nervous System.....	37	The Determination of Sex.....	225
DUGAN, W. C.: Surgical Treatment of Acute Phlegmon.....	136	MATHEWS, J. M.: Meckel's Diverticulum (?).....	262
DUTOURNIER, A.: Bronze Diabetes.....	226	MELTZER, S. J.: Myxœdema.....	129
EGGERS, G. C.: Consanguinity.....	715	MENDELSON, MARTIN: Enuresis and its Treatment.....	68
ELLIOTT, D. W.: Leeches.....	737	MIDDLETON, D. A.: Cystitis.....	746
FAULDS, W. H.: Summer Diseases of Childhood.....	297	MITRA, M. C.: Jaborandi as a Diaphoretic.....	9
FOSTER, JOHN M.: Blepharoplasty by Thiersch Grafts.....	135	MOONEY, J. J.: Angeio-neurotic Œdema.....	10
		MOORE, E. M.: Fractured Clavicle.....	1
		MOURE, E. J.: The Surgical Treatment of Deafness and Tinnitus Aurium.....	685
		MULLEN, J. A.: Medical Education—Its Defects and Perversions.....	483
		OMOHUNDRO, O. C.: Scarlet Fever.....	100

PACKARD, G. B.: Lateral Curvature of the Spine.....	705	VANCE, AP MORGAN: Manual Replacement in the Treatment of Club foot.....	162
PETER, WALDEMAR: Ætiology of Pemphigus Neonatorum.....	198	Operation within the Bladder by Means of the Cystoscope.....	237
REAGOR, F. B.: Mitral Regurgitation.....	332	WALLING, P. A.: Abortion.....	622
REDDINGS, T. J.: Penetrating Wounds of the Eyeball.....	710	The Doctor's Duty to Himself.....	13
REMONDINO, P. C.: Reflections on the Military and Medical Lessons Taught by the Late Madagascar Campaign.....	33	WARD, E. B.: Criminal Assault.....	161
REYNOLDS, DUDLEY S.: Local Treatment of the Eye.....	422	Malaria versus Malaqua... ..	458
ROBERTS, W. O.: Four Cases of Cœcal Hernia..	43	Medical Legislation versus Education... ..	655
SAMPSON, JAMES: Scarlet Fever.....	97	Sweets for the Sweet (poem).....	203
SAMUEL, F. W.: Capillary Drainage in Abdominal and Pelvic Cavities.....	232	WILCOX, REYNOLD W.: Treatment of Amylolytic Dyspepsia.....	299
		WILMARTH, A. W.: Heredity as a Social Burden	387
		WINSLOW, L. FORBES: The Turkish Bath in Mental Disorders.....	289
		WOLFE, SAMUEL: Pain in the Lumbar Region ..	456

GENERAL INDEX TO VOLUME XIV.

- Abdomen, large, in infants..... 448
- Abdominal brain, an..... 287
- operation, the vaginal route for.... 313
- section for diagnostic purposes only. 420
- surgery, wound-closure in..... 292
- Abortion, criminal..... 677
- how to perform..... 667
- indications for..... 730
- rational treatment of..... 345
- the deplorable results of..... 622
- treatment of..... 249
- Abscess, cerebellar, from chronic suppurative
 otitis..... 351
- retropharyngeal..... 736
- subcutaneous—treatment of..... 58
- Acetylene gas, the new illuminant..... 15, 336
- toxicity of..... 373
- Achillea millefolium..... 604
- Acne from paraffin, a case of..... 125
- prescription for..... 540
- vulgaris—whale oil in..... 217
- Aconite, the use of..... 26
- to abort colds..... 220
- Aconitine preparations..... 660
- Acromegaly, the hands in..... 512
- Actinomycosis, potassium iodide in..... 156
- Addison's disease, a rare case of..... 294
- Adenoid growths and headache..... 284
- in children..... 160
- Adolescence, the hygiene of..... 742
- Adulteration of food products said to be detected
 by the Roentgen rays..... 691
- Advertising, gratuitous, in medical journals.... 755
- After-pains, instant relief of..... 731
- treatment of..... 508
- Agaricus in chorea..... 252
- Age and volupty in women..... 480
- heredity of..... 405
- of consent and higher enlightenment..... 105
- and sexual physiology..... 624, 657
- Albumen, simple test for..... 766
- test for..... 32
- Albuminuria and cantharides..... 51, 251
- and chloroform anæsthesia..... 250
- from vaccination..... 277
- hot-air baths in..... 697
- in non-eclampsics..... 259
- Alcohol, a word for..... 92
- in cancer..... 540, 601, 698
- in fevers..... 59, 348
- in malignant disease..... 601
- in the brain..... 147
- public-school teaching regarding. 41, 81, 83
- Alcoholic neuritis in old age..... 61
- Alcoholism and strychnine..... 378
- prescription for..... 124
- Alkaloidal versus galenical medication..... 650
- Aloes, ipecac with..... 124
- Alopecia areata, treatment of..... 409
- Alterative action of berberis..... 189, 602
- black cohosh..... 570
- ipecac..... 633
- Altitude, effect of on the circulation..... 341
- Ambergris, a remarkable lump of..... 244
- Ambulance corps in the United States and State
 services, instruction of..... 449
- Amenorrhœa, apiol in..... 315
- electricity in..... 380
- from cold, water pepper in..... 668
- helonias in..... 761
- American medical and dental degrees in Eng-
 land..... 466
- Ammonia succinate in labor..... 218
- Amyl nitrite in pneumonia..... 281
- Amyloid, a masquerade of fatty degeneration... 589
- vegetable..... 590
- Anæmia, eye-strain as a cause of..... 64
- grave—iodine and iron in..... 188
- iodine and iron in..... 347
- of pregnancy..... 316
- splenic—inhalation of oxygen in..... 730
- Anæsthesia, chloroform—suspended animation
 from..... 367
- the introduction of..... 208
- Anæsthetic, a new—septrionaline..... 273
- accidents during administration of.. 208
- action of oil of guaiac..... 251
- tents..... 444
- Anæsthetics, new local (ethyl chloride, olive oil,
 coryl, guaiac, etc.). 218, 339, 668, 764
- statistics of..... 15
- Anal eczema and fissure, santolin in..... 337
- pruritus, causes of..... 63
- chlorine in..... 337
- prescriptions for..... 762
- Analgesia in locomotor ataxia and epilepsy.... 640
- Anasarca, pilocarpine and elaterium in..... 220
- Anastomotic button, Chaput's..... 345
- Anatomy, a new fact in..... 704
- Ancient remedies..... 627, 646, 672
- Aneurysm, aortic—causation of..... 544
- calcium chloride for..... 594
- carotid..... 123
- of hepatic artery..... 607
- subclavian, relieved by innominate
 ligature..... 115
- traumatic—unique case of..... 193
- Angeioma, enormous..... 236
- Angio-neurotic œdema..... 10
- Angina pectoris, the nature of..... 384
- Animals—can they talk?..... 565
- psychic development of..... 432
- Anthelmintics in the treatment of worms..... 378
- Anthropological discovery, a novel..... 564
- Anti-diphtheritic serum..... 17
- See also* Diphtheria.
- Antipyretics, coal-tar derivatives as..... 697, 709
- the therapy of..... 709
- water and ice as..... 697
- Antiquity of man..... 531
- Antisepsis, intestinal..... 448
- Antiseptic action of chloroform internally..... 57
- Antitoxin and its therapeutics..... 253
- Aorta, tendinous cord in the..... 575

Aperient, a pleasant.....	763	Berberis aquifolium.....	189
figs an.....	571	as an alterative.....	602
oranges an.....	571	Bertillon system of measurement adopted at Sing	
pie-plant an.....	571	Sing.....	500
Aphrodisiac powder, an.....	444	Bicycle accident—a curious.....	116
Apiol in amenorrhœa and dysmenorrhœa.....	315	dangers.....	183, 187
in tertian intermittents.....	264	evils of the.....	436
Apomorphine, avoid greenish.....	124	saddles and their relation to riders.....	477
Apoplexy, spinal.....	126	the, and stricture.....	768
Appendicitis.....	127	Bicycles and babies.....	116
operation for.....	171	and women.....	352, 702
rash operation in.....	373	Bile, the toxicity of.....	750
surgery in.....	219	Biology, the difficulties of.....	5
Appendix vermiformis, function of the.....	766	Bird, a four-footed.....	34
pearl in the.....	149	Bird-shot wound in the jaw.....	428
Apples, therapeutic value of.....	571	Birth through central rupture of the perineum.....	543
value of as food.....	210	Bismuth paste in orchitis.....	284
Archæological discoveries, recent.....	340, 565	phosphate, soluble.....	251
Arecoline bromhydrate.....	346	subnitrate, poisoning by.....	378
Argon and helium non-valent.....	630	Bison, discovery of the remains of an extinct	
Arms of the Chinese.....	579	species of.....	340
Arsenic, the subcutaneous administration of.....	155	Bisulphite-of-carbon liniment.....	92
Arterial walls, suture of.....	768	Black cohosh, therapeutics of.....	570
Asafoetida as a diffusible stimulant.....	603	eye, capsicum annuum not a remedy for.....	564
Asbestos clothes.....	339	Bladder atony, strychnine in.....	509
wool as a surgical dressing.....	209	catarrh, chimaphila in.....	635
Astasia-abasia, sodium phosphate in.....	315	potassium permanganate in.....	764
Asthma, carrots in.....	571	Bladder paralysis, functional.....	604
chloride-of-methyl spray in.....	156	symptoms in women.....	314
lobelia in.....	604	tumor, malignant—spontaneous cure of.....	443
preliminary symptoms of.....	481	washing out the.....	539
prescriptions for.....	92, 411, 476, 594	Bleeders, calcium chloride to control.....	572
syrup hydriodic acid in.....	764	Blepharoplasty by Thiersch grafts.....	135
Astigmia versus astigmatism.....	209	Blind architect, a.....	276
Athletics, danger of excessive.....	743	Blindness from male-fern.....	283
Atmospheric moisture and mucous membranes.....	469	from quinine and from malaria.....	704
Atropine poisoning, a case of.....	142	Blister, a painless.....	476
Aurora borealis and the cathode rays.....	372	Blisters, indications for.....	731
Australia as a summer resort.....	101	Blood-letting in pneumonia.....	318
Auto-infection.....	749, 767	See also Venesection.	
Babies, superstitions about.....	447	Blood-stains in medico-legal cases.....	63
Bacilli, colon and typhoid—differentiation of.....	465	removal of.....	405
Backache.....	456	Blood-stasis, belladonna in.....	412
black cohosh for.....	570	Boils, echinacea for.....	700
gelsemium for.....	220	egg-skin as an application for.....	603
Bacteria and butter.....	723	in gout, treatment of.....	28
and the Roentgen rays.....	403	iodine for the relief of.....	28
Bacteriological science and the MEDICAL AGE.....	113	on the nose, cranberry poultice for.....	572
Bacteriologists, a slap at the.....	20	Bone, growing—effect of phosphorus on.....	640
Bacteriology.....	596	tuberculosis, crepitus in.....	350
a cruel guide.....	20	BOOK REVIEWS:	
and the medical profession.....	543	A Savage of Civilization.....	310
in agriculture.....	565	Abbott, A. C.: The Principles of Bacteriology.....	278
in typhoid fever.....	19	American Text-book of Obstetrics. Edited by	
Baked beans, value of.....	210	Richard C. Norris and Robert L. Dickinson.....	118
Balling hoofs, remedy for.....	81	American Text-book of Physiology. Edited	
Bandages of celluloid.....	581	by Wm. H. Howells.....	631
Barber shop, disinfection in the.....	52	American Text-book of Surgery. Edited by	
infection in the.....	740	Wm. W. Keen and J. Wm. White.....	215
Baths and exercise.....	316	American Text-book of the Theory and Prac-	
differentiation in.....	742	tice of Medicine. Edited by Wm. Pepper..	214, 310
in cerebro-spinal meningitis.....	284	American Year-book of Medicine and Surgery.	
Bathing and swimming, physiology of.....	545	Edited by George M. Gould.....	214
Bats, curiosities of hibernation in.....	19	Andrae, Percy: Stanhope of Chester.....	311
Beach, Alfred Eli—career of.....	47	The Vanished Emperor.....	503
portrait of.....	opp. 33	Appendix to Dunglison's Medical Dictionary.....	248
Bedsore, abortion of.....	412, 573	Bannatyne, Gilbert A.: Rheumatoid Arthritis.....	597
Bee-stings, a remedy for.....	18	Barnes, William: Dame Fortune Smiled.....	534
ipecac in.....	475	Blatchford, Robert: Tommy Atkins of the	
poppy-juice for.....	284	Ranchunders.....	278
Beef, raw—the value of.....	569, 571	Boisliniere, L. Ch.: Obstetric Accidents, Em-	
Beer-brewing in the United States.....	595	ergencies, and Operations.....	438
Belladonna in blood-stasis.....	412		
therapeutics and dosage of.....	763		

BOOK REVIEWS—Continued.

- Bosworth, Francke Huntington: Diseases of the Nose and Throat..... 726
- Boughton, Rhoda: Not Wisely, but Too Well. 535
- Boyd, Mrs. O. Bronson: Cavalry Life in Tent and Field..... 438
- Brothers, A.: Infantile Mortality during Child-birth, and its Prevention..... 373
- Brown, Vincent: My Brother..... 695
- Browne, Lennox: Diphtheria and its Associates..... 55
- Buck, Albert H.: A Vest Pocket Dictionary... 694
- Bulletin from the Laboratories of Natural History of the State University of Pennsylvania. 597, 598
- Burdock, Edward: Microbes and Disease Demons..... 119
- Buret, F.: Syphilis in Ancient and Prehistoric Times..... 278
- Burnett, J. Upton: Dull, Backward, Puny and Stunted Children..... 56
- Busey, Samuel C.: Personal Remembrances and Recollections of 46 Years' Membership in the Medical Society of the District of Columbia and Residence in the City of Washington..... 309
- Butler, George F.: A Text-book of Materia Medica, Therapeutics, and Pharmacology.. 694
- Canton, Wm.: The Invisible Playmate..... 119
- Carhart, J. W.: Norma Trist..... 120
- Carus, Paul: Karma..... 758
- The Gospel of Buddha..... 725
- Chambers, Robert W.: The King in Yellow.. 278
- Chapman, Henry C.: Manual of Medical Jurisprudence and Toxicology..... 278
- Charaka-Samhita, the..... 55, 341,
- Claiborne, J. Herbert, Jr.: Functional Examination of the Eye..... 216
- Clarke, J. Jackson: Post-partum Hæmorrhage in Medico-Legal and Ordinary Cases..... 726
- Comstock, John H. and Anna B.: Manual for the Study of Insects..... 342
- Corwin, Arthur M.: Essentials of Physical Diagnosis of the Thorax..... 694
- Crockett, S. R.: Bog-Myrtle and Peat..... 54
- Cleg Kelly, Arab of the City. 438
- Culbreth, David M. R.: A Manual of Materia Medica and Pharmacology..... 598
- Custis, Marvin A.: The Practice of Medicine. 248
- Da Costa, J. M.: Medical Diagnosis, with Special Reference to Practical Medicine..... 185
- Dana, James D.: Manual of Geology..... 215
- Davis, Edward T.: A Treatise on Obstetrics.. 631
- Dawson, J. Wm.: Specimens in the Peter Redpath Museum of McGill University, illustrating the Physical Character and Affinities of the Guanches, or Extinct People of the Canary Islands..... 407
- DeLafield, Francis: Pathology, Anatomy, and Histology..... 726
- Dorland, W. A. Newman: Manual of Obstetrics..... 535
- Edwards, Harry Stillwell: Sons and Fathers.. 725
- Einhorn, Max: Diseases of the Stomach... 759
- Fayrer, Sir Joseph: Serpent Worship, and the Venomous Snakes of India..... 406
- Fenn, George Manville: The White Virgin... 407
- Foster, Frank P.: Reference Book of Practical Therapeutics..... 757
- Foster, Michael: A Text-book of Physiology. 186
- Galt, John: The Entail; or, the Laids of Grippy..... 309
- Gant, S. G.: Diagnosis and Treatment of Diseases of the Rectum, Anus, and Contiguous Textures..... 375
- Geological Survey, Sixteenth Annual Report of the..... 278
- Goode, George Brown: Oceanic Ichthyology. 758
- Goss, I. J. M.: A Text-book of Materia Medica, Pharmacology, and Therapeutics..... 310
- Practice of Medicine..... 373
- Gould, George M.: Borderland Studies..... 503
- Gounod, Charles François: Memoirs of an Artist..... 278
- Grandin and Jarman: Pregnancy, Labor, and the Puerperal State..... 186
- Gray, Henry: Anatomy, Descriptive and Surgical..... 597
- Gray, Landon Carter: A Treatise on Nervous and Mental Diseases..... 120
- Haeb, O.: Atlas of Ophthalmoscopy..... 342
- Hardy, Thomas: The Woodlands..... 311
- Hare, H. A.: Practical Diagnosis..... 597
- Hatfield, Marcus P.: Diseases of Children... 504
- Hawley, Thomas D.: Infallible Logic..... 757
- Hayden, James R.: A Manual of Venereal Diseases..... 567
- Haynes, Irving S.: A Manual of Anatomy... 471
- Helferich, H.: Atlas of Traumatic Fractures and Luxations..... 342
- Hering, Ewald: On Memory and the Specific Energies of the Nervous System..... 56
- Herrick, James B.: A Handbook of Medical Diagnosis for Students..... 216
- Hogan, Louise E.: How to Feed Children... 407
- Hoppin, Emily Howland: Under the Corsican 186
- Horne, John Fletcher: The Buried Cities of Vesuvius—Herculaneum and Pompeii.... 186
- Houston and Kennelly: Electricity in Electrotherapeutics..... 341
- Hull, Edward: How the Waters in the Ocean Became Salt..... 406
- Hurdall, John Sutcliffe: Veterinary Homœopathy in its Application to the Horse..... 630
- Hyde, J. M.: A Manual of Syphilis and the Venereal Diseases..... 56
- Ingraham, Charles W.: Don'ts for Consumptives..... 375
- International Medical Annual, the..... 375
- Jackson, George T.: Ready Reference Handbook of Diseases of the Skin..... 567
- Jacobi, A.: Therapeutics of Infancy and Childhood..... 374
- Jakob, Christfield: An Atlas of the Normal and Pathological Nervous System..... 310
- Jennings, J. E.: Color Vision and Color Blindness..... 216
- Jokai, Maurus: Pretty Michel..... 374
- Jordan, David Starr: A Manual of Vertebrate Animals of the Northern United States... 211
- Jussen, Marie: Those Good Normans..... 438
- Keeley, Leslie E.: The Non-heredity of Inebriety..... 695
- Kellogg, J. H.: The Stomach..... 407
- Kidd, Walter Aubrey: The Difficulties of Evolution..... 406
- Laurie, Annie: The Little Boy who Lived on a Hill..... 56
- Lawler, James J.: Hot-water Heating, Steam and Gas Fitting..... 88
- Leonard, C. Henri: Mulum in Parvo Reference and Dose Book..... 504
- Le Plongeon, August: Queen Moo and the Egyptian Sphinx..... 406
- Lloyd, J. Uri: Etidorhpa..... 309
- Lockwood, George R.: A Manual of the Practice of Medicine..... 56
- Loomis, Alfred G.: A Text-book of the Practice of Medicine..... 120

BOOK REVIEWS—*Continued.*

- Lyall, David: Heather from the Brae..... 566
 Lydston, G. Frank: Over the Hookah..... 694
 McDougall, John: Forest, Lake, and Prairie.. 597
 McFarland, Thomas: A Text-book upon Pathogenic Bacteria..... 342
 McGillicuddy, T. J.: Functional Diseases of the Nervous System..... 663
 Manson, George J.: The Sporting Dictionary. 503
 Marvel, Ik: Reveries of a Bachelor..... 726
 Medical News Visiting List..... 56
 Medical Record Visiting List..... 56
 Meigs, Arthur V.: Feeding in Early Infancy.. 631
 Merck & Co.: Index for 1895 of Chemicals and Drugs..... 693
 Moore, Frankfort: A Gray Eye or So..... 504
 Morris, Robert: Lectures on Appendicitis.... 55
 Morse, John T., Jr.: Life and Letters of Oliver Wendell Holmes..... 630
 Murrell, Wm., and Castle, Frederick A.: A Manual of Pharmacology and Therapeutics. 631
 Nevius, J. L.: Demon Possession and Allied Themes..... 311
 O'Grady, Standish: In the Wake of King James..... 662
 Our Animal Friends..... 120
 Pemberton, Max: The Iron Pirate..... 504
 The Sea Wolves..... 342
 Phillips, L. M.: Miskel..... 375
 Plicque, A. F.: *Precis de Clinique Therapeutique*..... 56
 Powell, J. W.: Seventh Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institute..... 55
 Presbyterian Hospital of the City of New York, Medical and Surgical Report of the..... 407
 Price, A. T. B.: Simplicity..... 694
 Proceedings of the American Academy of Railway Surgeons..... 567
 Quay, George H.: A Monograph of Diseases of the Nose and Throat..... 759
 Remondino, P. C.: The History of Circumcision..... 567
 Remsen, Ira: The Principles of Theoretical Chemistry..... 739
 Rhyn, Otto Henne Am: *Mysteria Jesuits*..... 119
 Ribot, Th.: The Psychology of Attention.... 248
 Ridgway, Robert: A Manual of North American Birds..... 566
 Rockwell, A. D.: The Medical and Surgical Uses of Electricity..... 694
 Rotch, Thomas Morgan: *Pediatrics—The Hygienic and Medical Treatment of Children*..... 118
 Roux, Fernand: *Formulaire Aide de Memoire. Vade Mecum de Praticien*... 375
 Russell, Dora: A Hidden Chain..... 374
 Ryan, Marah Ellis: A Chance Child; Comrades; Hendrex and Margo; Persephone... 695
 Sajous, Charles: Annual of the Universal Medical Sciences..... 214
 Savage, Richard Henry: *Checked Through. Lost Countess Falka* 694
 Schaeffer, Oscar: Anatomical Atlas of Obstetrical Diagnosis and Treatment..... 758
 Scherren, Henry: Popular History of Animals, for Young People..... 311
 Schmidt, Dr.: Anatomy of the Human Head and Neck..... 504
 Whittaker's Anatomical Model. 504
 Schofield, Alfred T.: An Inquiry into the Formation of Habit in Man..... 406
 Scudder, John M.: The Value of Medicated Inhalations..... 88
 Senn, Nicholas: Principles of Surgery..... 56
 The Pathology and Surgical Treatment of Tumors.... 215
 Sexual Ills and Diseases..... 503
 Shoemaker, John V.: *Treatise on Materia Medica and Therapeutics*..... 186
 Simon, Charles E.: A Manual of Clinical Diagnosis..... 598
 Sinclair, Arthur: Two Years on the Alabama. 214
 Smith, J. Lewis: Diseases of Infancy and Childhood..... 311
 Smithsonian Institution, Annual Report of the Board of Regents for 1893..... 758
 Speight, T. W.: The Heart of a Mystery.... 374
 Starr, Louis: Diets for Infants and Children in Health and Disease..... 375
 Sternberg, George M.: A Text-book of Bacteriology..... 406
 Stewart, R. W.: Diseases of the Male Urethra..... 758
 Stillé, Maisch J. M., Caspari, and Maisch H. C. C.: The National Dispensatory.... 248
 Stockwell, G. Archie: The Physician's Perfect Call List..... 663, 693
 Stoney, Emily A. M.: Practical Points in Nursing..... 471
 Supplement to the International Encyclopedia of Surgery. Edited by John Ashhurst.... 88
 System of Diseases of the Eye. Edited by Norris and Oliver..... 693
 System of Surgery. Edited by Dennis and Billings..... 503
 Taylor, Bert L., and Thoits, Alvin T.: Under Three Flags..... 757
 Taylor, Robert W.: The Pathology and Treatment of Venereal Diseases..... 185
 Thompson, Edward P.: Roentgen Rays, and Phenomena of the Anode and Cathode.... 759
 Three Ethical Codes..... 375
 Torrey, Bradford: Birds in the Bushes..... 534
 Transactions of the American Microscopic Association..... 342
 Transactions of the Medical Society of the State of New York..... 215
 Transactions of the Michigan State Medical Society..... 216
 Transactions of the Michigan State Medical Society for 1896..... 695
 Transactions of the Royal Academy of Ireland..... 406
 Treatise on Surgery. Edited by Roswell Park Twentieth Century Practice. Edited by Thomas L. Stedman..... 88, 407, 534, 758
 United States Commission of Fish and Fisheries..... 341
 United States Geological Survey, Sixteenth Annual Report of the..... 311
 Vaughan and Novy: Ptomaines, Leucomaines, Toxins, and Antitoxins..... 663
 Wells, Wm. H.: A Compend of Gynæcology. 535
 Werner, E.: The Price He Paid..... 631
 Wharton, Henry R.: Minor Surgery and Bandaging..... 535
 White, W. Hale: *Materia Medica, Pharmacology, and Therapeutics*..... 503
 Williams, Martha McCullough: Two of a Trade Wilson, J. C.: An American Text-book of Applied Therapeutics..... 598
 Wise, P. M.: A Text-book for Training Schools of Nurses..... 693
 Witthaus, R. A., and Becker, Tracy C.: Medical Jurisprudence, Forensic Medicine, and Toxicology..... 215
 Wood, H. C., and Fitz, Reginald H.: The Practice of Medicine..... 662

BOOK REVIEWS—*Continued.*

- Woodbridge, John Eliot: Typhoid Fever and its Abortive Treatment..... 407
 Year Book of Treatment for 1896..... 248
 Yeo, I. Burney: Food in Health and Disease. 597
 Zangwill, I.: The Big Bow Mystery..... 55
- Borax, poisonous effects of..... 146, 160
 the solubility of..... 636
 Boric acid in the preservation of milk..... 593
 poisoning by..... 339
 Brain, a nail in the..... 384
 exploration with needle and syringe.... 480
 of the demented, insane, deaf, dumb, and blind..... 551
 reported alteration in the..... 49
 surgery, with report of a case..... 551
 Bravery of a medical man..... 243
 Breast abscess, cow-dung poultice for..... 756
 Breasts, supernumerary..... 448
 Bright's disease and insanity..... 222
 cured by systemic treatment... 386
 uric acid in the blood in..... 672
 British Medical Association in 1897..... 689
 Bromide eruptions..... 146
 Bromides, effects of..... 538
 Bromoform in whooping-cough..... 156
 Bronchitis, acute—linseed oil in..... 604
 of the aged, prescription for..... 509
 saw palmetto in..... 538
 Bronze diabetes, pathology and pathogeny of.. 226
 Buoy, life—a new..... 371
 Burial, premature..... 304
 Burns, liniment for..... 124
 magnesia in..... 668
 potassium nitrate in..... 443
 turpentine in..... 730
 witch hazel for..... 763
 Butter and bacteria..... 723
 and oleomargarine..... 243
- Cactus grandiflorus..... 188
 action of on the heart..... 380
 in various strictures..... 380
 Cæcal hernia, four cases of..... 43
 Caffeine as a heart stimulant..... 348
 value of..... 153
 Cajuput in pneumonia..... 219, 763
 Calaya in malaria..... 377
 Calcium carbide in uterine cancer..... 635
 chloride in pneumonia..... 155
 hippurate in cirrhosis of the liver.... 411
 Calculi, salivary—diagnosis of..... 447
 Calculus, yarrow in..... 604
 Calomel a specific in diphtheria..... 433
 in combination..... 660
 subcutaneously..... 122
 tomatoes as a substitute for..... 571
 treatment of hæmorrhoids..... 763
 Cancer, alcohol in..... 540, 601, 698
 and meat diet..... 688
 and the Pasteur Institute..... 183
 chelidonium as a cure for..... 722
 chloride of chromium in the treatment of cure the means of expelling Dr. Adamkiewicz from the Medical Society of Vienna..... 594
 cure that cost \$500..... 594
 institutions, so-called..... 157
 of the breast, surgery of..... 31, 94
 of the rectum, elm bark in..... 404
 Roentgen rays in..... 666
 uterine..... 608
 calcium carbide in..... 635
 diagnosis of..... 352
- Candle power..... 183
 Cannabis indica for itching..... 509
 Cantharides and albuminuria..... 251
 Canthotomy..... 346
 Capillary drainage in abdominal and pelvic cavities, with report of four cases..... 233
 Carbolic acid as an antiseptic, dangers of..... 30
 in tetanus..... 60, 148, 283, 508
 Carbonic acid, influence of on the sexual organs 729
 Carbuncles..... 282
 collodion for..... 409
 echinacea for..... 700
 glycosuria in connection with..... 764
 local treatment of..... 379
 Cardiac irritability, nitroglycerin in..... 77
 irritation, belladonna in..... 476
 murmurs, organic and inorganic..... 768
 sedative, lobelia as a..... 665
 sensations..... 736
 stimulant, hot water as a..... 124, 540
 nitroglycerin as a..... 476
 Cardiac tonic, lobelia as a..... 665
 Cataract, cineraria maritima in..... 18
 the nature of..... 385
 Catarrh, alkaline diuretics in..... 124, 412
 of the liver and bowels, baptisia in... 219
 Catarrhal jaundice, two cases of..... 700
 states of the bladder, chimaphila in... 411
 ipeacac in..... 633
 Catgut, objections to..... 175
 Catheter, choose the largest..... 764
 how to pass the..... 636
 the block-tin..... 768
 Catheterism in the male..... 734
 Cathode rays and the aurora borealis..... 372
 Celery in rheumatism..... 217
 Celluloid bandages..... 591
 glass coating..... 371
 Centenarians in France..... 533
 Cerebellar abscess from chronic suppurative otitis 351
 Cerebral disorders, points in the diagnosis of... 124
 uræmia..... 672
 Cerebro-spinal meningitis, baths in..... 284
 epidemic..... 191
 passiflora in..... 92
 Cerebrum and labyrinth, relations between.... 512
 Cerium oxalate habit..... 636
 in tabes dorsalis..... 700
 Chancre, a good dressing for..... 572
 an application for..... 700
 phagedenic—cupric sulphate in..... 58
 Chancroid, nitric acid and camphor as an application for..... 666
 Cheese, dietetic value of..... 595
 Chelidonium as a cure for cancer..... 722
 Chicago diploma-mill..... 239
 Children's diseases, sea air in..... 313
 teeth, the care of..... 761
 Chimaphila in catarrhal states of the bladder... 635
 umbellata, the valuable properties of 411
 Chinese arms..... 579
 fortitude a myth..... 583
 heartlessness..... 588
 opium-smoking..... 306
 Chloral hydrate, uses and dangers of..... 89
 Chloride of lime for snake poison..... 284
 Chlorine for pruritus ani..... 348
 Chloroform anæsthesia and albuminuria..... 250
 importance of respiration in..... 671
 suspended animation from..... 367
 Chloroform fatality, fear as a factor in..... 308
 in labor..... 123, 154
 internally..... 57, 188, 218

- Chloroform oxygenated..... 698
 poisoning, venesection in..... 154
 post-mortem notes on deaths due to..... 669
 resuscitation from..... 666
 strychnine as an antidote to..... 573
 uses of..... 188, 540
 versus ether..... 174
 Chlorosis and corsets..... 764
 and iron..... 250
 as an infectious disease..... 224
 in strumous habit, prescription for..... 252
 Sir Andrew Clark's prescription for..... 121
 sulphur in..... 380
 Cholera infantum, belladonna in..... 763
 Chopart's amputation, modification of..... 636
 Chopparro amargoso..... 380
 Choreia a form of rheumatism .. 531
 agaricus in..... 252
 and rheumatism, relations between..... 190, 531
 cimicifuga and arsenic in..... 668
 cured by passiflora..... 602
 differentiation of..... 384
 prescription for..... 412
 quinine in..... 155
 strychnine in..... 220, 447
 Chromic acid, dangers of..... 731
 Cicatrices, modification of..... 411
 Cigarettes, proposed law concerning..... 275
 Cinchona bark employed before quinine was discovered..... 650
 Circulation, caffeine as an aid to the..... 153
 effect of altitude on the..... 341
 Circulatory equilibrium, lobelia to produce..... 664
 Circumcision versus dilatation of prepuce..... 690
 Citric acid in gonorrhœa..... 316
 Clavicle, treatment of fractured..... I, 160
 Cleft palate, early operation for..... 380
 Clinical thermometer, the..... 82
 Clothing, proper..... 743
 Club-foot, manual replacement in the treatment of..... 162
 Coal oil as a medicament..... 313
 Coal-tar derivatives as antipyretics..... 697, 709
 Cocaine addiction and patent medicines..... 720
 danger in the indiscriminate use of..... 761
 dangerous effects of..... 27
 in dentistry..... 60
 in pertussis..... 92
 intoxication..... 699
 poisoning, antidotes for..... 347
 Cocainist, confessions of a..... 381
 Coccyx, fracture of..... 762
 Cold sponging, value of..... 224
 Colds, aconite to abort..... 220
 menthol in..... 216
 Colic, bilious—dioscorea in..... 506
 in a horse, Taka-Diastase for..... 530
 lead—prescription for..... 509
 nephritic—yarrow for..... 604
 Collar, explosion of a celluloid..... 244
 Colon and typhoid bacilli, differentiation of..... 465
 Color blindness in Asiatics..... 640
 Colorado, the waning reputation of..... 576
 Condiments, action of on digestion..... 320, 544
 Conium, Dioscorides' plan of preparing..... 249
 Conjunctivitis due to larvæ..... 191
 treatment of..... 187, 423
 Consanguineous marriages, results of..... 160, 701, 715
 Constipation, congenital..... 732
 electricity in..... 189
 habitual..... 744
 cascarin recommended in..... 596
 cause and treatment of..... 497
 causes and effects of..... 767
 treatment of..... 27
 Constipation—is it ever a disease?..... 671
 of infants, causation and treatment of..... 441, 601
 caused by lack of fat in the food..... 732
 Constipation of pregnancy, prescription for..... 700
 water for..... 668
 Continued fever, not typhoid..... 735
 Contracts not to practice medicine, validity of..... 274
 Convulsions in children..... 258
 uræmic..... 426
 Convulsive conditions, passiflora in..... 154
 Corn meal, nutritive value of..... 608
 Corns, application for..... 700
 Corneal ulceration, quinine in..... 254
 ulcers, detection of..... 28
 Corsets and chlorosis..... 764
 and forceps..... 533
 proposed tax upon..... 19
 Coryl, a new local anæsthetic..... 668
 Coryza from potassium iodide..... 347
 gelsemium in..... 591
 Cough, chronic laryngeal, cured by pulsatilla..... 699
 of children, santonin in the..... 337
 Counter-irritation, chloroform to produce..... 188, 540
 Cows' milk, difficult digestibility of..... 297
 Coxa vara..... 352
 Cracked-pot sound..... 62
 Cremation, progress of..... 183
 Creosote enemata..... 252
 externally in fevers..... 537
 in gonorrhœa..... 732
 in phthisis..... 603
 in pregnancy..... 411
 pills, variations in..... 690
 the action of..... 667
 the use of..... 348
 the value of..... 444
 Crepitus in bone tuberculosis..... 350
 Cretinism cured by thyroid..... 371
 treated by thyroid..... 271
 Crime and the daily press..... 560
 increase of..... 339, 703
 the physical basis of..... 72
 Criminal assault..... 161
 Croup, membranous—jaborandi in..... 27
 prescription for..... 476
 Croup, pokeberries in..... 764
 potassium bichromate in..... 218
 spasmodic—copaiba in..... 59
 specific action of pilocarpine in..... 220
 Cry, an uncontrollable intermittent laryngeal..... 605
 Cryostase..... 531
 Crystals, hollow..... 277
 in the sputum of so-called cured cases of hay fever..... 491
 Curette, the uterine..... 346
 Curvature, lateral, of the spine—causation and treatment of..... 705
 Cyclamen and pulsatilla..... 251
 Cysticerci in the human skin..... 126
 Cystitis, pathology, sexual distribution, prophylaxis and treatment of; cases..... 746
 sandalwood oil in..... 508
 santonin in..... 337
 Dandruff, sulphur in..... 315
 Deafness, mullein oil in..... 572
 the surgical treatment of..... 685
 Death, a sign of..... 640
 proof of..... 146
 Deformity, a peculiar..... 429
 of infantile paralysis, tendon-grafting in..... 252

- Degrees, American medical and dental, in England..... 466
 "university" for selling..... 81
 Delirium tremens, cannabis indica in..... 314
 Jamaica dogwood in..... 571
 passiflora in..... 92
 treatment of..... 668
 Dental obtundent, a..... 700
 Dentistry, cocaine in..... 60
 Dentists, American, in Germany..... 724
 Depilatories..... 474
 Devil's snuff in epistaxis..... 252
 Diabetes, brewer's yeast in..... 123
 bronze..... 226
 cured..... 555
 diet in..... 122
 early diagnosis of..... 384
 pancreatic—experimental study of..... 351
 uranium nitrate in..... 148, 573
 Diabetic blood, simple method for distinguishing..... 639
 Diabetics, peanuts for..... 571
 Diagnosis, abdominal section for..... 420
 gesture in..... 735
 Diamonds, artificial..... 661
 Diaphoretic action of jaborandi..... 9
 of water..... 509
 Diaphragm, traumatic rupture of..... 128, 315
 Diarrhœa and dysentery, prescription for..... 252
 blackberries in..... 571
 chronic—hot-water enemas in..... 729
 guarana in..... 443, 731
 in children, treatment of..... 370
 persistent, cured by rumex crispus... 315
 summer—management of..... 538
 Diet in chronic heart disease..... 156, 219
 Dietetic rules..... 148, 210
 Digestion, action of condiments on..... 320, 544
 and assimilation..... 210
 time required for..... 277
 Digitalis, action of..... 28
 and children..... 188
 as a general styptic..... 690
 direct action of on the central nervous system..... 37
 group, the, in heart diseases..... 93
 in croupous pneumonia..... 60
 shall we surrender it for digitalin?... 652
 versus strophanthus..... 368
 Dilettante therapeutics..... 638
 Dioscorea villosa, therapeutics of..... 506
 Diphtheria, a point in the diagnosis of..... 412
 antitoxin in a case of..... 205
 antitoxin in the treatment of..... 393, 413
 bacillus, value of..... 736
 calomel as a specific for..... 433
 epistaxis of..... 409
 necessity of rest in..... 28
 phytolacca in..... 219
 pokeberries in..... 764
 smoking as a preventive of..... 177
 treatment of..... 144
 two cases of..... 205
 Diploma-mill in Chicago..... 239
 Dipsomania from traumatism..... 608
 Disinfectant action of mustard..... 30
 Dislocation of the arch of the foot..... 704
 Diuretic action of caffeine..... 153
 theobromine..... 189, 729
 water..... 509
 Divorce, venereal disease a sufficient cause for..... 725
 Doctor Jekyll and Mr. Hyde, the basis of..... 209
 Doctor's duty to himself..... 13
 Doctors' schemes..... 661
 Dosage extraordinary..... 350
 Douche, the, in gynæcology..... 729
 Dover's powder, pharmacology of..... 653
 Dragging-down sensation in pelvic disorders, false unicorn in..... 573
 Drainage, capillary, for abdominal and pelvic cavities..... 232
 Dressing, rice ash as a..... 405
 wet..... 572
 Drooling of infants..... 448
 Drowned, resuscitation of the..... 506
 Drug eruptions..... 594
 simulating scarlet fever..... 335
 Drug store in New York, only one..... 52
 Drunkards and druggards, manufacture of..... 445
 Dryness of mouth, simple remedy for the relief of..... 284
 Duboisine in nervous diseases..... 58
 poisoning..... 729
 Dulcamara, value of..... 444
 Dying declarations..... 223
 treatment of the..... 467
 Dynamite headache..... 604
 Dysentery, iodoform in..... 124
 Dysmenorrhœa, a mixture for..... 724
 apiol in..... 315
 constitutional treatment necessary in..... 28
 santonin in..... 337
 Dyspepsia, amylaceous..... 317
 amylolytic—treatment of..... 299
 flatulent—prescription for..... 636
 Taka-Diastase in..... 91, 238, 299
 See also Indigestion.
 Ear affections, electricity in..... 539
 following grip..... 9
 in children, treatment of..... 762
 Ear surgery..... 686
 Earths, rare..... 468
 Easton's syrup..... 476
 Echinacea for carbuncles and boils..... 700
 in septic conditions..... 667
 Eclampsia and albuminuria..... 26
 and uræmia..... 127
 veratrum in..... 314
 with tabulated report of 42 cases..... 65
 Eclectics and their principles..... 317
 Ectopic pregnancy, operation for..... 173
 Eczema and psoriasis, differentiation of..... 672
 changes in the nature of..... 32
 examine the urine in..... 764
 jaborandi in..... 348, 477, 668
 prescription for..... 604
 the itching of..... 348
 Education—of what shall it consist?..... 744
 Effervescing essences..... 405
 Eggs, therapeutic value of..... 571, 663
 Electric energy, a new discovery for the economical production of..... 336
 Electric-lighted lead-pencil, an..... 662
 Electric power of the sun..... 81
 Electricity in amenorrhœa..... 380
 in ear affections..... 539
 in hæmorrhage..... 252
 in uterine fibroids..... 444
 prolongation of life by..... 295
 Element, supposed discovery of a new..... 756
 Elephant, dosage of an..... 350
 Elm bark in rectal cancer..... 404
 Emetics..... 634
 Empirical therapeutics..... 628
 Empyema of antrum, diagnosis and treatment of..... 40
 Endocarditis, early treatment of..... 348
 Endometritis..... 256
 gonorrhœal—danger in the local treatment of..... 380

- Enuresis and its treatment . . . 68, 124, 411, 412,
572, 635, 667, 763
nocturnal—ergot in 380
spasmodic—passiflora in 92
See also Urinary incontinence
- Epilepsy, ætiology of 703
a new treatment of 444
analgesia in 640
and the bromides 530
and uric acid 703
as an inherited neurosis 387
horse nettle in 28
hydrocyanate of iron in 122
is it curable? 147
œnanthe crocata in 699
tansy in 412
- Epileptics, refusal of Judge Ferris to issue mar-
riage licenses to 370
should they marry? 530
- Epistaxis, fungus myces in 252
of diphtheria 409
- Epithelioma 736
Marsden's paste in 122
of the face, lactic acid in the treat-
ment of; cases 132
phytolacca in 284
thuja in 667
- Ergot from the Canary Islands 212
in enlarged spleen 371
in labor, dangers of 282, 570
the administration of 282
- Erodium cicutarium 603
- Eruptions from drugs 594
from potassium iodide 602
simulating scarlatina 335
- Erysipelas, cranberries recommended in 571
jaborandi in 315
of the leg cured by amputation 556
soap and water in 667
- Essences, effervescing 405
- Ether, accidents during the administration of 208
administration, a suggestion in 443
collapse, camphor in 252
rules for the administration of 90
- Ethmoiditis as a cause of insanity 64
- Ethyl chloride as a local anæsthetic 218
in hæmorrhage from tooth-extraction 218
- Eunuch, exhibition of the skeleton of a 478
- Euthymol in neurasthenia 60
- Examination fever 501
- Exanthemata, black cohosh in 570
the ear during 282
- Exercise and bathing, effects of on the pulse 545
effect of on the pulse 547
the therapeutics of 166, 743
- Exophthalmic goitre and nuclein 147
and pregnancy 192
pathology and treatment of 189, 349
sodium phosphate in 122
- Expectorant action of water 509
the best 412
- Expectorants 635
- Experimental action of purgatives 654
- Experimentation, fatal 530
- Expert testimony 274
- Eye, a new method of examining the 387
disease, causation of 385
effect of veils on the 765
enucleation, caution after 128
local treatment of the 422
soreness from cold, grindelia squarrosa in 691
strain as a cause of anæmia 64
ruta graveolens in 252
- Eye strain, the recognition of 350
systemic treatment of the 385
- Facial neuralgia, intractable 156
prescription for 349
- Fads, origin of 20
- Fatigue, transference of 480, 752
- Fatty degeneration, a masquerade of 589
systemic cure of 386
- Favus, treatment of 380
- Feeding the new-born 222
- Femoral shortening 287
- Fever, continued, not typhoid 735
intermittent 92
puerperal 31
typhoid—treatment of . . . 4, 5, 6, 7, 8, 59,
108, 145, 204, 224, 239, 243, 259, 260,
261, 262, 316, 380, 401, 607, 609, 641,
674, 675, 732, 751
- Fevers, alcohol in 59, 348
antipyretics in 708
belladonna in 763
lobelia as a preventive of 665
malarial intermittent—creosote exter-
nally in 537
tertian intermittent—apiol in 264
the coal-tar derivatives in 697, 709
See also Typhoid fever.
- Fibroids and thyroid 411
cured by thyroid extract 189
See also Uterine fibroids
- Fibroma molluscum of labium, enormous 768
- Filaria sanguinis hominis in the bladder 223
- Filters 275
- Filtration as a means of purifying water supply 178
- Firemen's clothing made of asbestos 339
- Fish-bone in the throat, how to displace 603
- Fistula in ano 313
vesico-vaginal, from a pessary 429
- Fistulæ, special forms of rectal 620
- Flexion of the leg as a sign of tabes 576
- Flies as the hosts of poultry tapeworm 192
in the sick-room 540
- Floating kidney anchored by operation 172
- Fœtal heart-beat and sex determination 736
- Fœticide 677
- Fœtus found in the abdomen of a man 338
hiccough in the 319
killed by typhoid fever 767
stabbed 639
- Follicular catarrh and trachoma 423
- Food and indigestion 254
and stimulus 544
- Foods, French 502
of various nations 437
remedial 571
tubercular 499
- Foot, dislocation of the arch of the 704
- Football accident, a serious 768
- Forceps and corsets 533
delivery 425
- Foreign bodies in throat, simple remedy for the
relief of 156, 603
- Formaldehyde in gonorrhœa 508
- Fracture of coccyx 762
of spine 16
- Fractures, management of 733
- Fractured clavicle, ligature of 160
treatment of 1
- Freak of nature, a strange 338, 660
- Freckles, the sun does not cause 244
- Fresh plant extracts 249
- Frozen animals—can they be restored to life? 628
- Fruits, nourishing value of 260
therapeutic value of 571

- Functional cardiac disease, review of 63 cases of 134
 Furuncles in crops, colchicum in..... 668
- Galactagogue, a new 92
 Gall-stones and the Roentgen rays..... 352
 dioscorea recommended for..... 506
 intestinal obstruction by 492
 nitroglycerin for 475, 668
 Gangrene as a complication of typhoid..... 607
 senile..... 269
 thuja in 667
 Gargle, the value of the 380
 Gastralgia, blisters for..... 731
 Gastric affections, chloroform in 218
 glycerin in..... 507
 ipecac in 27
 silver in..... 474
 silver nitrate in..... 27
 Gastric catarrh, black cohosh in..... 571
 dilatation, nodosities of the hands in... 512
 hyperacidity, tobacco injurious in. 316
 secretion, effect of acids on..... 576
 ulcer, Fowler's solution in..... 764
 Gastritis of drinkers, prescription for..... 124
 Gastro-intestinal catarrh, treatment of..... 699
 irritation, dioscorea in 506
 Gelsemium for "cold in the head" 591
 Genital tuberculosis 735
 tumor reaching to the knee..... 768
 Genito-urinary irritation, saw palmetto in 91
 Geophagism in children 157
 Geranium maculatum as a styptic 60
 Germs, from a Paris standpoint 21
 the cause or the result of disease?..... 662
 Gesture in diagnosis..... 735
 Glandular enlargement, phytolacca in..... 573
 Glaucoma and iritis, a symptom of..... 470
 cured by diet..... 555
 operation for..... 633
 Glonoin in syncope..... 412
 Glycerin in affections of the stomach..... 507
 in renal stone..... 91
 intra-uterine injections of 249
 Glycosuria and illuminating gas 21
 dietetic and other treatment of 377
 Goitre, a distensile 736
 exophthalmic—pathology and treatment
 of 349
 thuja in..... 667
 thyroid in..... 92, 660, 732
 Gold spectacle-frames cause pain 183
 Gonorrhœa, a good remedy for..... 667
 and quackery..... 730
 citric acid in..... 316
 creosote in 732
 formaldehyde in..... 508
 gynæcological complications of... 605
 in a negro, wonderful prescription
 for..... 637
 in women..... 126, 192
 frequency of..... 608
 irrigation in 284
 the so-called early treat-
 ment of..... 666
 Gonorrhœa, injections in..... 92, 730
 of the kidney 252
 salix nigra in 698
 santonin in 337
 specifics for..... 688
 the best injection in 92
 Gonorrhœal endometritis, dangers in the local
 treatment of..... 380
 pleurisy..... 224
 rheumatism, acute—treatment of... 346
 jaborandi in 573
- Gonorrhœal rheumatism, mercury in..... 379
 Gout, cider in..... 149
 from lead..... 576
 the hands in 511
 Gravel, grapes recommended in..... 571
 spinach recommended in..... 571
 Graves' disease treated with nuclein..... 19
 Greenland birch, the..... 533
 Grindelia squarrosa, therapeutics of..... 691
 Grip, boneset in the treatment of..... 531
 some sequels of 8
 treatment of..... 144
 Growth, rapid..... 532
 Guaiac resin as a purgative 732
 Guaiacol as a local anæsthetic..... 668
 Guarana in diarrhœa..... 443, 731
 Guinea-worm, the..... 541
 Gynæcological cases 439
 complications of gonorrhœa.... 605
 Gynæcology, douches in..... 729
 progress of..... 575
- Hæmatemesis..... 477
 a case of persistent..... 577
 Hæmoglobinuria, causation of..... 348
 Hæmophilia, calcium chloride to control 572
 Hæmoptysis, geranium maculatum in..... 378
 Hæmorrhage after tooth-extraction arrested by
 ethyl chloride..... 218
 at or near the menopause, signifi-
 cance of..... 725
 cotton-root bark in..... 412
 electricity in 252
 mullein oil in 27
 post-partum—novel remedy for.. 502
 sulphur and cream
 of tartar in..... 668
 turpentine in..... 220, 509
 two prescriptions for 379
 Hæmorrhoids, an ointment for 316
 calomel treatment of..... 763
 clamp and cautery in the treat-
 ment of 123
 from spice-testing..... 62
 horse chestnut in..... 699
 treatment of 219
 Hair and scalp diseases, Euthymol in..... 237
 superfluous—how to remove 474
 tonic, oil as a..... 763
 methyl chloride as a..... 123
 Hallux valgus, double—correction of..... 442
 Hand, clinical significance of the..... 511
 Hay fever and a common cold 717
 applications in 316, 732
 causation and treatment of 481, 592
 cures and cocaine addiction 721
 ill-effects of cocaine in..... 524
 nomenclature, symptomatology, cau-
 sation, and treatment of 513
 pill for 316
 sabadilla in..... 764
 suggested remedies for..... 528
 Headache and adenoid growths 284
 black cohosh in 570
 from dynamite..... 604
 paroxysmal—ergot in..... 378
 passiflora in..... 602
 periodic—ergot in..... 252
 persistent—calomel in..... 764
 Head-nodding 31
 Healthiest spot in the world..... 244
 Heart constriction, cactus grandiflorus in... 380
 disease, advantages of strophanthus in... 93
 chronic—dietetic treatment of... 156, 219

- Heart disease, functional 134
 mitral regurgitation 332
 the digitalis group in 93
 the liver in 58
 Heart disturbance and puberty 128
 cactus in 188
 Heart failure, impending—caffeine in 348
 or heart starvation 210
 Heart murmurs, functional 320
 perforation not sufficient to cause death .. 638
 ruptured 305
 suture of 543
 the, in pregnancy 288
 therapeutics 538
 with moderator band in the left ventricle. 574
See also Cardiac.
 Helonias, therapeutics of 761
 Hens' eggs, vibrio in 436
 Herbalist in the Dublin market 57
 Heredity as a social burden 387
 of age 405
 Hernia families 208
 four cases of cœcal 43
 inguinal—palliative treatment of 526
 radical cure of 90
 taxis in strangulated 730
 Hernia, peculiar 31
 umbilical, and eventration 346
 Herpes zoster, bismuth subnitrate in 123
 Hiccough, bandaging recommended in 28
 capsicum in 447
 cerium oxalate in 412
 cured by traction of the tongue 732
 in the fœtus 319
 Higher education in St. Louis 20
 enlightenment 105, 462
 Hip, congenital luxation of 442
 Hip-joint disease, symptomatology of 608
 Hoarseness, egg and lemon for 603
 Holding children for nose and throat treatment. 160
 Honey, the value of 25, 571
 Horse, the, and society 596
 Horses, sagacity of 752
 Horse-flesh in America 373
 in Paris 308
 Horse-leech in the larynx 192
 Hospital corps in the United States and State
 services, instruction of 449
 Hot-air baths in albuminuria 697
 Hot applications in pneumonia 412
 water as a heart stimulant 540
 in surgery 377
 Housekeepers needed 180
 "Hugh Wynne, Free Quaker" 754
 Humoral pathology 543
 Hydrangea, value of 412
 Hydrarthrosis, blisters in 731
 Hydrastis in nasal and pharyngeal maladies... 27
 Hydrocele, operation for 347
 thuja in 700
 Hydrocephalus, spurious—belladonna in 763
 Hydrophobia and Pasteur 479
 and the fear of it 116
 and the Pasteur Institute. .64, 159,
 183, 286
 fatal to immunized dogs 338
 inoculation 18
 rarity of 608, 629, 692
 Hygiene of adolescence, the 742
 Hymen, unruptured—pregnancy with 351
 Hyperidrosis, formalin and tannoform in 316
 sage in 762
 Hypertrichosis, pastes better than razors in 474
 Hypnotic action of chloral hydrate 89
 Hypnotism a fraud 662
 Hypochondria, constipation as a cause of 767
 Hypodermatic medication 476
 Hysterectomy in Paris, startling frequency of... 765
 Hysteria, apomorphine recommended in 92, 316
 constipation as a cause of 767
 the temperature in 672
 Hysterical phenomena and the X rays 274
 Ice bag of paper 437
 bells in Japan 181
 cap for heat-reduction 697
 Identification, personal, as practiced at the Sur-
 geon-General's office in the United States
 Army 723
 Idiocy and consanguinity 160
 and imbecility, heredity of 388
 Idiots' skulls 115
 Illegitimacy, comparative 276
 Illegitimate birth, a peculiar 287
 Illuminant, the new 15
 Illuminating gas and glycosuria 21
 Imagination, effects of 689
 Immigrants, undesirable 52
 Impotence, atonic—ligation of dorsal vein in... 668
 functional 217
 Incised wounds, staphysagria in 224
 Index Medicus, the 115
 Indigestion and food 254
 factors contributory to 733
 in children, prescription for 475
 intestinal—bromhydrate of arecoline
 in 346
 of starchy foods 123
 peanuts in 571
 Taka-Diastase in 441, 660
 tomatoes in 571
 Inebriety and insanity 276
 curability of 128
 Infancy and childhood, mortality of 275
 avoidable ills of 308
 Infant feeding 277
 Infantile scurvy from sterilized milk 274
 thirst 732
 Infected heirlooms 277
 Influenza and the female sexual organs 160
 pilocarpine in 412
 quinine to prevent 25
 Ingrowing toe-nail, treatment of 380, 763
 Innominate ligature, successful 115
 Insane asylum, the Toronto 500
 the uvula of the 575
 Insanity and Bright's disease 222
 and heredity 389
 and murder 341
 ethmoiditis as a cause of 64
 increase of 703
 test of 117
 the use of baths in 290
 Insect, a metal-cutting 339
 bites, a preventive of 604
 destroyer, a new 469
 stings and bites, prescription for 572
 Insomnia, apples invaluable in 571
 lettuce in 571
 the warm bath in 540
 Instruments, the care of 630
 Intemperance, the doctor's duty to avoid 13
 Intermittent fever, pilocarpine to abort the chills
 of 92
 pulse, cause of 159
 International Medical Congress, the Tenth 180
 Science Association, an 722
 Intestinal antiseptics 448
 atony, boric acid in 315
 obstruction, belladonna in 763

- Intestinal obstruction by gall-stone—ætiology, symptomatology, diagnosis, and treatment of 492
 perforation, detection of 288
 early diagnosis of 768
- Intestinal troubles, dioscorea in 506
- Intoxication, ammonia in 148
 by cocaine 699
- Intra-uterine injections of glycerin 249
 mucus germicidal 470
- Iodine applications, dangers of 410
 impure tincture of 218
 in dermatology 220
 liniment, danger of 63
- Iodoform, the virtues of 556
- Ipecac, empirical use of 651
 in bee-sting 475
 therapeutics of 633
- Iritis and glaucoma, a symptom of 470
 following grip 9
 grindelia robusta in 764
 treatment of 187
- Iritomy, a new 250
- Iron hydrocyanate in epilepsy 122
 is it a simple element? 624
- Itching, cannabis indica in 509
 of eczema, jaborandi in 348, 477, 668
 of scrotum, prescription for 509
- Itch mite, how to kill the 700
- Jaborandi as a diaphoretic 9
 in erysipelas 315
 pharmacology of 650
- Jacaranda in sore throat 316
- Jamaica dogwood in muscular soreness 477
 the therapeutics of 572
- Japanese Army medical service 146, 211
- Jaundice from obstruction of the ductus choledochus 270
 two cases of 700
- Keeley motor—what it is 692
- Kerosene as a medicament 313
- Kidney, action of turpentine on the 640
 affections, pilocarpine in 476
 calculus, an enormous 573
 treatment of 379
- Kidney colic, snakeroot in 124
 fatty degeneration of, cured by the Salisbury plan 555
 movable—pathology and treatment of 329
 rupture from football 768
 sarcoma, operation for 170
- Koch and Father Kneipp 502
- Kola—a warning 443
 chocolate, poisoning by 380
 dangers of 762
- Labial herpes during acute meningitis 736
- Labor, a triplet, with acardiac twin 447
 chloroform in 123, 154, 221
 cleanliness in 222
 defecation during 425
 forceps delivery in 425
 induced by sodium salicylate 699
 induction of premature 409
 missed 384
 nux vomica in 699
 pains, mitigation of 221
 strychnine in weak 155
- Labor, pernicious effects of ergot in 570
 position after 666
 succinate of ammonia in 218
 strychnine treatment preparatory to 573
 the occipito-posterior position in 417
- Labor, urination after 576
 uterine hæmorrhages at the time of 426
 what is natural? 512
- Labyrinth and cerebrum, relations between 512
- Lacing, tight, and the King of Uganda 757
 evils of 743
- Lactic acid in epithelioma of the face 132
- Lactophenin, action of 250
- Lamp from a thermometer-case 533
- Laryngeal cough, chronic, cured by pulsatilla 699
 disease, suspicious—potassium iodide in 60
 infiltration 163
 location of a horse-leech 192
 phthisis, local treatment of 194
- Laryngitis, acute—Dover's powder in 348
- Lateral curvature of the spine, causation and treatment of 705
- Latin not ambiguous 756
- Laughter as a symptom of disease 480
- Laxative, water as a 509
- Lead colic, prescription for 509
 gout 576
- Leeches, anatomy, biology and cultivation of 737
- Left-handedness in North American aboriginal art 468
- Lemon, therapeutic value of the 571
- Leontiasis ossea, the hands in 512
- Leprosy in South Africa 725
 changes in the nature of 32
- Leucorrhœa and American women 662
 chronic—arsenic in 668
- Leukæmia, a case of 45
- Lichen planus, pathognomonic sign of 416
- Lightning stroke, pathology of 158
- Liquidambar out of market 277
- Liquor tritici, applications of 410
- Literary degrees in Germany and the United States 725
- Lithæmia 200
- Liver cirrhosis, calcium hippurate in 411
 corrosive sublimate in 251
- Liver diseases, dioscorea in 506
 engorgement, black cohosh recommended in 571
 tonic, ipecac as a 633
 troubles, apples invaluable in 571
- Lobelia, therapeutics of 665
- Locomotor ataxia, analgesia of the trunk of the ulna in 640
- Lodge practice 145
- Longevity, curiosity in 373
 examples of 308, 405, 533
 medical 372
 the evolution of 757
- Lucium not an element 756
- Lumbar pains, ætiology of 456
- Lumbricoids, prescription for 348
- Lungs, surgery of 95
- Lupus, creosote in 636
 thyroid in the treatment of 442
- Lymph-gland disease, pilocarpine in 187
- Macbeth up to date 596
- Madagascar campaign, military and medical lessons taught by the 33
- Magnesia for burns 668
- Malaria, calaya in 377
 causes of 83
 in children, sunflower extract in 668
 versus malaqua 458
 water versus atmosphere as a cause of 125
- Malaria and quinine amaurosis 704
 intermittent fever, creosote externally in 537
 parasite, the 339

- Malarial troubles, dioscorea in..... 506
 Male-fern, blindness from 283
 poisoning by 640
 Malignant disease, alcohol in..... 601
 nuclein in..... 176
 Malignant tumor of the bladder, spontaneous
 cure of 443
 Malingering in children 305
 Malnutrition, Taka-Diastase in..... 345
 Maniacal excitement from sodium salicylate 64
 Marriage in England 244
 the regulation of 703
 Masturbation 180
 Maternal impression or idiosyncrasy 369
 Maternity, precocious 596
 Maxillary, tumor of the superior..... 351
 Measles, German 32
 jaborandi in retarded eruptions of..... 28
 microbe discovered 18
 potassium bichromate in 284
 prescription for the incessant cough of..... 124
 should we quarantine?..... 203
 Meat diet and cancer 688
 the truth as to 340
 Meat may not be exhibited in New York 239
 Meckel's diverticulum 262, 263
 Mediæval gynæcology 127
 Mediastinal tumor..... 448
 Medical centenarian, death of a..... 372
 colleges, misrepresentation by 595
 department of the U. S. Navy..... 275
 education 52
 its defects and perversions ... 483
 Medical journal, the ideal..... 757
 journals and free advertising 755
 new..... 755
 Medical journalism, quick and easy 370
 legislation versus education 655
 magic..... 501
 men to avoid..... 276
 practice, cause of loss of..... 692
 in France..... 276, 499
 in Germany..... 500
 in Rhode Island..... 531
 Medical schools, a defect in 629
 fake..... 594
 in St. Louis and Chicago..... 661
 Medical services, legal lien for 209
 testimonials..... 752
 Melancholy cured by operation..... 507
 Menière's disease, pilocarpine nitrate in..... 148
 Meningitis, acute—herpes on the lips during ... 736
 tubercular—prevention of..... 667
 Menorrhagia, erigeron in 124
 Menstrual irregularities, helonias in..... 761
 Menstruation and cleanliness..... 218, 315
 in a child one week old 692
 in hot countries 62
 vicarious..... 338, 767
 Mental aberration and uterine disease..... 431
 disease of old age 255
 disorders, the Turkish bath in 289
 therapeutics..... 206, 700
 Mercury, excretion of through the sweat glands. 192
 perchlorate 731
 the *modus operandi* of 470
 Metal-cutting insect, a..... 339
 Metaphysics, the neglect of 647
 Methyl chloride for the falling-out of hair 123
 Metrorrhagia in virgins, diagnosis of 730
 Microbe of measles discovered 18
 Microbes necessary..... 31
 on the skin, in the mouth, eyes, blad-
 der, etc..... 751
 Microbic pathology..... 501
 Micro-organisms, a plea for 96, 148
 See also Bacteriology, etc.
 Micturition, abnormal 284
 Migraine, prescription for..... 700
 Milk, artificial human..... 21
 preservatives, dangers of..... 593
 suppression, pennyroyal in..... 572
 Mind and body, relations of..... 206
 Missing link, the..... 80, 468
 Mitchell, Dr. S. Weir, and "Hugh Wynne, Free
 Quaker"..... 754
 Mitral regurgitation—pathology, symptomatol-
 ogy, and treatment of..... 332
 Moisture in apartments, a test for..... 339
 Morphinism, sodium phosphate in..... 412
 Mortality of infancy and childhood..... 275
 Moth patches, to remove..... 60
 Moulds and yeast cells..... 445
 Mouth-wash, a grateful..... 220
 Movable kidney, pathology and treatment of.... 329
 Mucous membranes and the Great Lakes 469
 Mullein oil, value of..... 572
 Mumps, turpentine as a remedy for..... 444, 509
 Murder and insanity..... 341
 Muscular rheumatism and stiffness, chloroform
 in..... 188
 rhus tox. in..... 756
 Muscular soreness, cimicifuga in..... 477
 grindelia squarrosa in..... 691
 Music and animals 756
 Musk odor..... 437
 Mustard as an antiseptic 30
 oil, true and artificial..... 636
 Mydriatic, duboisine as a..... 729
 scopolamine as a..... 475
 scopolein a superior..... 92
 Myxœdema, the hands in..... 512
 with report of a case treated by thy-
 roid 129
 Nævi in children, treatment of..... 634
 the removal of..... 28
 Nasal applications, evil results of..... 61
 catarrh, a simple remedy for 60
 disorders, reflexes due to..... 718
 irritability, the location of 718
 maladies, hydrastis in..... 27
 obstructions, barbarity in removing..... 716
 plugs..... 282
 ulcers, permanganate of potassium in.... 700
 Natural-history humbuggery 242
 Negro doctors 637
 Negroes, why are they black?..... 29, 542
 Nervous diseases, duboisine in 58
 eructation 83
 system, effect of digitalis on the..... 37
 Neuralgia, facial—prescription for..... 349
 in rheumatics, rhus tox. recommend-
 ed in..... 348
 Jamaica dogwood in 477
 liniment..... 699
 was it?..... 143
 Neurasthenia, Euthymol in..... 60
 prescription for..... 732
 valerianates in..... 83
 Neuritis, alcoholic, in old age 61
 grindelia robusta in..... 411
 ointment of pilocarpine nitrate in 380
 Neuromata, a novel method of disposing of 531
 Neuroses after oöphorectomy..... 383
 celery in..... 571
 onions in..... 571
 turnips recommended in 571
 New woman, what is the?..... 243
 Newspapers and crime..... 560

- Newspapers as moral censors 207
 Night sweats of phthisis, cold compresses in... 573
 staphysagria in..... 732
 Nitrites, test for..... 724
 Nitroglycerin as a cardiac stimulant 476
 for gall-stones.....475, 668
 in sciatica.....123, 219
 Nose, importance of examination of the..... 719
 Nostrum traffic, the 469
 Nostrums..... 543
 and the cocaine habit..... 720
 and the medical profession..... 752
 Notification of contagious diseases must be paid
 for..... 405
 Nuclein and exophthalmic goitre 147
 in beginning phthisis 238
 in effusion of lungs 46
 in malignant diseases..... 176
 in pneumonia 239
 in tuberculosis 216, 252
 in typhoid fever..... 239
 Nutritive value of corn-meal 608
 Nux vomica in parturition 699
- Obesity, duboisine in..... 316
 Obstetrical superstitions..... 221
 Obstetrics, some things found helpful in..... 425
 Occipito-posterior positions 417
 Odors in disease..... 501
 Œdema, angeio-neurotic..... 10
 Enanthe crocata in a case of epilepsy 699
 Œsophageal surgery, X rays in..... 512
 Oil as a hair tonic..... 763
 of cade in skin affections 603
 Old age, mental diseases of 255
 psychoses of..... 349
 Old native remedies 57
 Oldest house in the United States..... 661
 Oleomargarine and the feeding of fat 434
 compared with butter 243
 Onions for the complexion..... 604
 therapeutic uses of..... 571
 Ontario insane asylum, the 500
 Oöphorectomy, a case of..... 431
 neuroses after..... 383
 unjustifiable 251
 Operating-table, the..... 116
 Operation on a child one day old..... 692
 within the bladder by means of a cysto-
 scope..... 237
 Ophthalmia following grip 8
 nodosa 256
 Opium and its alkaloids..... 653
 chloroform as a substitute for..... 540
 in abdominal work..... 175
 Orchitis, acute—pulsatilla in 412
 and peritonitis 320
 bismuth paste for..... 284
 Organic extracts 277
 Orificial surgery..... 18, 95
 Osmosis..... 447
 Osteitis deformans, the hands in..... 512
 Osteo-arthropathy, hypertrophic pulmonary—the
 hands in..... 512
 Osteomalacia, treatment of..... 284
 Osteomyelitis and the Eberth bacillus..... 446
 of long bones..... 316
 Otalgia, prescription for..... 476
 Otitis, cerebellar abscess from 351
 externa or media, treatment of..... 347
 media from other diseases..... 282
 treatment of..... 282
 trichloracetic acid in..... 314
 Otitis, treatment of..... 313
 Ovarian cyst, removal of an enormous 432
 Ovarian cyst, tapping of..... 448
 nerve-fibres, discovery of..... 704
 neuralgia, gelsemium in..... 306
 pain with general cachexia cured by
 electricity 143
 sympathetic ganglia..... 448
 Ovariectomy..... 171, 172, 174
 in Paris, startling frequency of..... 765
 per rectum during labor; death..... 767
 Ovaritis and pelvic disorders..... 575
 Oxygen as a beverage 18
 Oxygenated chloroform 698
 Oxytocic action of black cohosh 570
 of tartar emetic..... 412
 Oysters, the growth of..... 503
 Ozone in pertussis..... 411
 the uses of..... 339
- Pain, a sedative application for..... 128
 chloroform internally for the relief of 57
 in the lumbar region, ætiology of..... 446
 local application for..... 314
 Pain-relieving influence of black cohosh 570
 of dioscorea..... 506
 Pain, rheumatic or neuralgic—a liniment for ... 92
 Palate, cleft—operation for..... 380
 Pan-American Medical Congress, the..... 337
 Pancreatic diabetes, experimental study of 351
 secretion, effect of acid on..... 576
 Pap—what is it?..... 28
 Paper, who owns the?..... 183
 Paralysis of the extremities, the hands in..... 512
 Paralyzant, a new—septrionaline..... 273
 Parasite, a new human..... 320, 400
 Parasiticide 668
 Parotitis, turpentine in 348
 Passiflora..... 92, 154, 474, 602
 Pasteurism..... 159
 Pasteur's nonsense..... 479
 Pate de fois gras, pathology of..... 640
 Patent and proprietary medicines..... 543, 766
 medicines and cocaine addiction..... 720
 Peanuts in phthisis..... 20
 therapeutic uses of 571
 Pediculi, oil of sassafras for..... 477
 Pelvic dimensions in primitive races... .. 288
 sequelæ of gonorrhœa..... 605
 symptoms, try purgation in..... 283
 troubles, hot water in..... 377
 Pemphigus neonatorum, ætiology of..... 198
 Pencil with electric light 662
 Penetrating wounds of the eyeball, treatment of 710
 Penis constricted by a ring for 14 years..... 158
 luxation of..... 61
 Pennyroyal in suppression of milk..... 572
 People of the world, the 629
 Pericardium, adherent..... 351
 Perineal laceration, chloroform in 345
 rupture in lying-in hospitals 30
 Periodic autumnal catarrh 513
 Peritonitis from orchitis 320
 local..... 511
 Personal identification as practiced in the U. S.
 Army..... 723
 Pertussis, belladonna in 763
 ozone in..... 411
 pseudo..... 352
 See also Whooping-cough.
- Pessary causes vesico-vaginal fistula..... 429
 Pharyngitis, chronic—application for 540
 prescription for 219
 Pharyngitis, prescription for..... 60
 Pharmacist, the future of the..... 243
 Pharmacists' wives, legal privileges of 564
 Pharmacy, curious 566

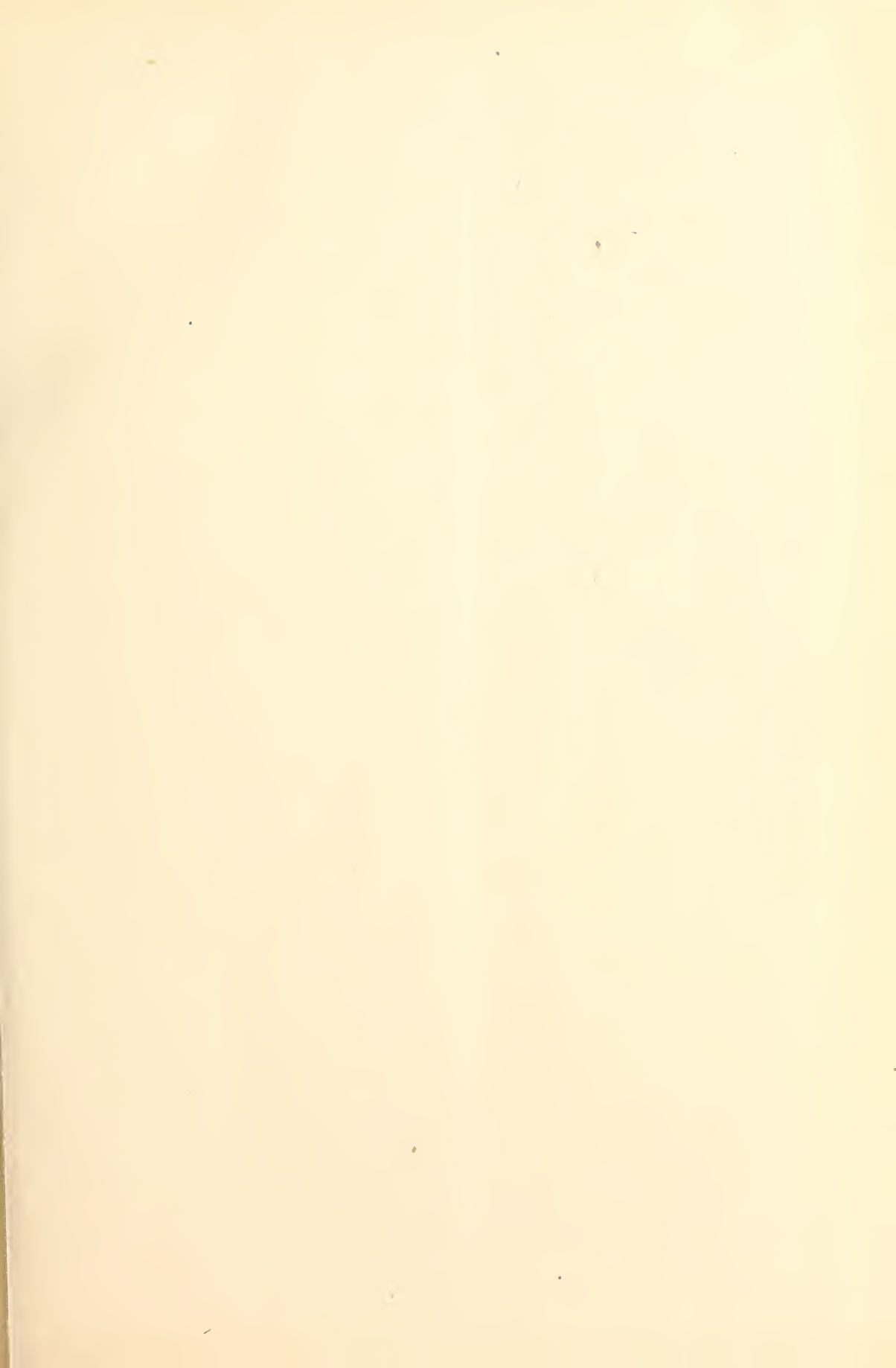
- Pharmacy in France..... 51
 Phimosis..... 256
 preputial dilatation versus circumcision
 in..... 690
 Phlebitis after typhoid..... 316
 Phlegmon, acute—surgical treatment of..... 136
 Phosphorescent bodies, invisible radiation by... 341
 Phosphorus, effect of on growing bone..... 640
 foods..... 189
 Phrenic nerve, division of the..... 159
 Phthisis apparently cured..... 90
 creosote in..... 444, 603, 667
 danger of, in Colorado..... 576
 first sign of..... 159
 from tattooing..... 210
 laryngeal..... 194
 nuclein in..... 238, 252
 peanuts in..... 20
 prevention of..... 32
 Physical basis of crime..... 72
 Physician, requisites of a..... 532
 Physicians, a legal decision regarding..... 116
 in Paris, condition of..... 211
 Physiology in the public schools..... 48, 303
 Phytolacca..... 189
 in diphtheria..... 219
 in epithelioma..... 284
 Pills of creosote, variation in..... 690
 Pilocarpine in diseases of the lymphatic glands... 187
 in kidney affections..... 476
 Pineal body, the..... 285
 Pistol bullet passed with the urine..... 429
 Pithecanthropus..... 50, 468
 Placenta prævia, *erigeron canadensis* in..... 122
 Placental delivery should not be too early..... 222
 Plagiarism..... 241
 Plague in China..... 21
 in Hong Kong..... 404
 Plugging posterior nares..... 282
 Pneumogastric nerve, division of the..... 159
 Pneumonia, amyl nitrite in..... 281
 belladonna in..... 763
 cajuput in..... 219, 763
 calcium chloride in..... 155
 croupous—digitalis in..... 60
 heat the king of remedies in..... 28
 hot applications in..... 412
 ice-cream and lemon juice in..... 59
 in infants, treatment of..... 444
 lobelia as a preventive of..... 665
 nuclein in..... 239
 of the aged, emetics in..... 447
 so-called..... 697
 Pneumonia, opium in..... 508
 strychnine in..... 116, 410, 668
 treatment of..... 89
 typhoid—baptisia in..... 219
 venesection in..... 318
 indicated in..... 572
 Poisoning by bismuth subnitrate..... 379
 boric acid..... 339
 cocaine, antidotes to..... 347
 duboisine..... 729
 male-fern..... 640
 milk..... 160
 kola chocolate..... 380
 sorrel leaves..... 720
 stale eggs..... 182
 strychnine, chloral in..... 698
 Polydactylism, experimental..... 502
 Polypi in the middle ear, alcohol for the absorp-
 tion of..... 217
 Porous glass for windows..... 308
 Portraits of patients, a nice question concerning
 the use of..... 51
 Position after labor..... 666
 Post-partum hæmorrhage, turpentine in..... 220
 Potash-making..... 469
 Potassium bichromate..... 218
 in measles..... 284
 Potassium bitartrate, the field of..... 508
 iodide, belladonna in conjunction with..... 412
 coryza..... 347
 eruptions..... 602
 in suspicious laryngeal disease..... 60
 the question of..... 507
 Potassium nitrate in burns..... 443
 Pre-asthmatic state, the..... 481
 Precocious sexual development..... 16
 Pregnancy, an interesting case of..... 446
 and exophthalmic goitre..... 192
 creosote in..... 411
 drugs to avoid during..... 183
 precocious..... 306
 strychnine in..... 155
 the anæmia of..... 316
 the heart in..... 288
 with unruptured hymen..... 351
 Prehistoric remains in Florida..... 565
 Premature burial..... 304
 Preputial dilatation versus circumcision..... 690
 Prescribing, the passion for..... 595
 Prescription, decay of the..... 638
 difficulty, a..... 660
 the oldest..... 306
 Prescriptions for children, how to write..... 220
 Professional secrets..... 629
 Prolongation of life by electricity..... 295
 Prostate, functions of the..... 306
 Prostatic enlargement, resection of vasa deferen-
 tia in..... 153
 simulated by intestinal
 gall-stone..... 495
 Prostatitis, acute—hot water in..... 377
 Prostitution..... 614
 Pruritus ani, causes of..... 63
 chlorine in..... 337
 prescriptions for..... 412, 762
 scrotal—picric-acid ointment in..... 667
 vaginal and vulvar—helonias in..... 761
 vulvæ, prescription for..... 667
 Pseudo-arthritis, simplified operation for..... 127
 Pseudo-pertussis..... 352
 Psoriasis and eczema, differentiation of..... 672
 copaiba in..... 92, 220, 509
 chrysarobin in..... 189
 modified by syphilis..... 224
 permanganate of potassium for the local
 relief of..... 124
 Psychology versus physiology..... 207
 Psychoses of old age..... 349
 Puberty and disturbed heart action..... 128
 Puerperal convulsions—causes, symptoms, and
 treatment of..... 65
 probable ætiology of..... 257
 treatment of..... 761
 Puerperal fever..... 31
 sepsis, creosote in..... 314
 ergot, strychnine, and whiskey in..... 572
 the pain of..... 444
 Pulmonary congestion in the aged, treatment of..... 697
 effusion, nuclein in..... 46
 Pulsatilla and cyclamen..... 251
 Purgative action of guaiac resin..... 732
 Purgatives in diseased men and healthy dogs... 654
 Pus in urine, an unreliable test for..... 209
 Pyosalpinx, a case of..... 430
 Quack advertisements refused by the Ladies'
 Home Journal..... 46

- Quacks in Ireland..... 692
 why they prosper..... 725
 Quarantining in scarlet fever and measles..... 203
 Quinine and paludic amaurosis..... 704
 comparison of the salts of..... 281
 fraudulent..... 630
 in chorea..... 155
 in corneal ulceration..... 284
 in fevers, the action of..... 537
 in tablets..... 281
 the abuse of..... 121
 the best salt of..... 281, 628
 why it fails..... 412
 Quinsy, abortive treatment of..... 506
- Radiation, invisible, by phosphorescent bodies..... 341
 Recipes, ancient..... 182
 Recollections..... 366
 Rectal cancer, elm bark in..... 404
 disease, dioscorea in..... 506
 fistulæ, special forms of..... 620
 mucous membrane, the..... 607
 Rectum, stricture of..... 17
 Red Cross shut out from Turkey..... 81
 Reflex, the passing of the..... 723
 Refrigerant action of water..... 508
 Regeneration of spleen..... 672
 Remedies of the last century..... 646
 of the olden time..... 627, 646, 672
 Renal gonorrhœa..... 252
 Resuscitation of the new-born..... 156
 of the still-born..... 475
 Retina, are images formed upon the?..... 50
 Retinitis, pigmentary—phosphorus in..... 26
 Retrograde catheterization..... 217
 Retropharyngeal abscess..... 736
 Reynolds, Sir J. Russell—death of..... 400
 Rheumatism, acute articular—ice in..... 58
 gonorrhœal—treatment of... 346
 in children..... 288
 prescription for..... 411
 Rheumatism and chorea, relations between..... 190
 apples invaluable in..... 571
 celery as a preventive of..... 636
 celery in..... 217, 571
 chronic—prescription for..... 475
 muscular—chloroform in..... 188
 rhus tox in..... 756
 Rheumatism, pie-plant useful in..... 571
 rhus in..... 220
 sour oranges in..... 571
 the hands in..... 511
 Rheumatoid arthritis, Donovan's solution in... 476
 the hands in..... 511
 the most useful remedies in..... 764
 Rhinitis, cod-liver oil and hypophosphites in... 444
 hypertrophic—danger of chromic acid in..... 731
 in albuminuria..... 32
 Rhinoscope, the, in general practice..... 716
 Rhus aromatica in urinary incontinence..... 635
 poisoning, Jamaica dogwood in..... 571
 toxicodendron, therapeutics of..... 348, 756
 Rickets, prescription for..... 379
 the hands in..... 512
 Ringworm, application for..... 123
 of the scalp, oleate of copper for... 731
 prescription for..... 764
 Ringworm, sodium chloride for..... 26, 156
 Roentgen rays and bacteria..... 403
 and cancer..... 666
 and charlatanism..... 562
 and gall-stones..... 352
 and hysterical phenomena..... 274
 and œsophageal surgery..... 512
 and soft tissues..... 370
- Roentgen rays and superfluous hair..... 405
 and the adulteration of food prod-
 ucts..... 691
 and the aurora borealis..... 372
 attempts to polarize..... 531
 curious effect of..... 596
 in the witness-box..... 470
 medical applications of..... 145
 photographic work of the..... 181
 surpassed..... 757
 the latest wonder..... 78, 112
 Rumex crispus in diarrhœa..... 315
 Rupture of the diaphragm, traumatic..... 315
 of the urethra through coitus..... 720
 Ruptured heart..... 305
- Sage, the use of..... 762
 Salamander develops surplus toes..... 502
 Salivary stone, diagnosis of..... 447
 Salix nigra..... 475, 698
 Sand baths as a cure..... 661
 Sanitary organization for active service in the
 U. S. Army, the most
 practicable plan of... 353
 of the armies of Europe. 353
 Santonin, the dangers of..... 347
 the scope of..... 337
 Sarcoma, ligation of the iliac in..... 379
 Sarsaparilla delusion, the..... 306
 Saw palmetto..... 91
 in bronchitis..... 538
 Scabies, soap and water and copaiba in..... 700
 Scalp diseases, ethereal soap in..... 237
 Scarletina and chloral..... 220
 diagnosis, type, management, etc., of 200
 drug eruptions simulating..... 335
 mortality and treatment of..... 97
 should we quarantine?..... 203
 transmission of..... 64
 Scarletinal dropsy, hot baths in..... 220
 Sciatica, nitroglycerin in..... 123, 219
 prescription for..... 411
 rhus tox. recommended in..... 348
 therapeutics of..... 427
 Scientific association, an international..... 722
 foolishness..... 307
 Scopolamine..... 306, 475
 Scrotal pruritus, picric-acid ointment in..... 667
 Scrotum, shortening of the..... 667
 Scurvy, turnips recommended for..... 571
 watercress for..... 571
 Sea air in diseases of children..... 313
 Sea-bathing..... 538
 Sea-sickness, prescription for..... 220
 Seborrhœic vaginitis..... 283
 Secretory excitability of the alimentary canal... 576
 Sedative, a local..... 128
 action of Jamaica dogwood..... 571
 of passiflora..... 474
 of salix nigra..... 698
 Sedative astringents..... 447
 Self-advertising dodge, a new..... 80, 147
 Seminal stains, detection of..... 384
 Senna, palatable, for children..... 509
 Septic conditions, echinacea in..... 667
 Seprionaline, a new anæsthetic and paralyzant. 273
 Serpent poison, fatal experimentation with... 530
 impunity to..... 80
 Serum per rectum..... 252
 Sewing-machine treadle, a hygienic..... 691
 Sex determination..... 225, 320
 Chinese method of..... 349
 from foetal heart-beat..... 736
 Sexual aberration in the negro..... 713
 debility, saw palmetto in..... 25

- Sexual development, precocious 16
 impotence in the aged, prescription for .. 316
 knowledge, desirability of 662, 657, 745
 morality—"Higher Enlightenment"..... 462
 neurasthenia, prescription for..... 476
 novel, the..... 285
 organs, influence of carbonic acid on the .. 729
 of the Chinaman 532
 Sexual passion and age in women 470
 physiology and the age of consent 624
 relations of the thyroid gland..... 446
 sedative, *salix nigra* as a 474
 Shepherd's purse to remove urinary sediment... 667
 Shock, strychnine in. 60
 Shoulder-straps, wearing of 211
 Silver in gastric affections..... 474
 in surgery 441
 nitrate in minor ailments..... 27
 Sire, the influence of a previous 321
 Skeletons found in Florida..... 565
 in Pennsylvania 564
 Skin affections, berberis in..... 602
 diagnosis of..... 672
 oil of cade in..... 603
 Skin-sterilizer, hot water as a 377
 Skull-fracture, trephining in a case of..... 553
 Skunk odor, removal of..... 436
 Sleep after eating 520
 condition of the stomach during 768
 hygiene of 744
 Smallpox in Italy 566
 in Gloucester 372, 591
 in the French Army..... 768
 in the German Army..... 768
 the "red room" in 83
 Snakebite, successful treatment of 251
 Snake poisoning, chloride of lime in 284
 Sociology, remarks from the standpoint of 713
 Soda-water for the pocket..... 340
 Sodium salicylate induces labor..... 699
 severe maniacal excitement from 64
 Solanum Carolinense in trismus neonatorum ... 121
 paniculatum..... 604
 Sore throat, hot water as a gargle in..... 377
 jacaranda in 316
 Sorrel leaves, poisoning by 720
 Sparteine sulphate, test for..... 252
 Spasmodic diseases, aconite in 26
 Spasmus nutans 31
 Specialist, the day of the 400
 Spiders of Java 630
 Spider's web and steel thread..... 533
 Spina bifida relieved by excision..... 379
 Spinal apoplexy..... 126
 cord injury, long survival after..... 319
 curvature, causation and treatment of ... 705
 disease and coccygeal fracture..... 762
 irritation, Jamaica dogwood in 603
 pathology..... 192
 puncture 114
 Spleen, regeneration of the..... 672
 Splenic anæmia, inhalation of oxygen in 730
 enlargement, ergot in 371
 grindelia squarrosa in 691
 Sprains, hot water in 377
 Stage fright 501
 Stains, detection of seminal 384
 removal of..... 373
 Staphysagria for night sweats..... 732
 to relieve the pain of incised wounds 224
 Sterility and the bicycle 477
 causes of..... 320
 evils attendant on..... 32
 Sterilized milk, evil effects of..... 217, 274
 Still-born, resuscitation of the 475
 Stimulants, diffusible 374, 603
 Stimulus and food 544
 Stomach, contents of a woman's..... 212
 during sleep, the 768
 functions of the 733
 the, and auto-infection 750
 Stone in the bladder simulated by phimosis.... 256
 renal—glycerin in 91
 Strabismus, the operation of choice in 249
 Strangury, prescription for..... 444
 Stream-pollution, damage suit on account of ... 352
 Stricture and the bicycle..... 768
 impermeable—relief of, with report of
 cases..... 365
 relieved by retrograde
 catheterization 217
 Stricture of the heart, œsophagus, and neck of
 the bladder—*cactus grandiflorus* in 380
 Stridor on account of distensile goitre..... 736
 Strophanthus versus digitalis..... 368
 Strychnine and alcoholism 378
 in pneumonia 116
 in pregnancy..... 155
 in surgical work 175
 poisoning, chloral in 698
 Styptic action of *erodium cicutarium*..... 603
 of *geranium maculatum* 60
 Styptic, digitalis infusion as a general..... 690
 Subinvolution, iodoform iq..... 555
 Sublingual medication..... 92
 Sudden death, causes of 128
 Sugar and normal urine. 19
 Suicide, the publication of accounts of..... 405, 691
 Sulphur in chlorosis..... 348
 Summer diseases of childhood 297
 Summer diarrhœa, management of 538
 Sun, electric power of the..... 81
 Superfecundation and superfecundation 460
 Superstitions about babies 447
 Surgeon, duties of the 596
 Surgery in Pompeii 82
 of the past and present 366
 overdone 20, 765
 silver in 441
 Surgical cases..... 170, 428
 dressing, asbestos wool as a..... 209
 literature 629
 shock a cause of death..... 128
 Suspended animation 32
 from chloroform anæsthesia 367
 Suture material from the tail of a dog..... 436
 the metopic..... 480
 Sutures in abdominal surgery 292
 Sweets for the Sweet (poem)..... 203
 Swelled head..... 757
 Swimming, physiology of..... 545
 Sympathetic ganglion in the ovary..... 448
 Syncope, glonoin in..... 412
 Syphilis and vaccination..... 189
 berberis in..... 602
 tertiary, in a young child..... 767
 through a flea-bite..... 223
 Syphilitic infection in the barber shop..... 740
 of and by medical men..... 139
 Syphilitic sores, a mixture for..... 700
 ulcers, iodoform in..... 555
 Syringomyelia, sodium phosphate for..... 315
 Tabes, a new sign of..... 576
 dorsalis, cerium oxalate in 700
 mesenterica, baryta iodide in..... 181
 Tablets, insoluble..... 182, 276, 281
 Tæniafuge, a 444
 Talc in urine-examination..... 704
 Taka-Diastase 91, 238, 299, 317

- Taka-Diastase, a new use for 530
 in combination 443
 in indigestion 441, 660
 in malnutrition 345
Tansy as an abortive of poison 116
Tap, how to 347
Tapeworm, prescription for 636
Tapeworms and flies 192
 and urinalysis 608
Tartar emetic and variola 250
 as an oxytocic 412
Tattooing, tuberculosis from 210
Tea cigarettes 83
Teaspoons, variation in the size of 404
Teeth made of paper 560
 of children, care of 761
 of Tartar women 182
Teething children, passiflora for 92
Temperament, physical—classification of 647
Temperature and tuberculosis 480
 high—some instances of 256
 in hysteria 672
 subnormal 288
Tennyson's lung 244
Tents, anæsthetic 444
Testicle, dislocation of 96
Testicular injections and the medical profession 754
Testimonials, medical 752
Tetanus, carbolic acid said to have cured 60,
 148, 283, 508
 with report of cases 164
Theobromine 189, 729
Therapeutics, empirical 628
 new and old 645, 672
 progress of 655
 the neglected study of 348
 the value of 661
Thermometer, evolution of the 501
Thermometers, dirty 305
Thirst after laparotomy, relief of 380
 infantile 732
 simple remedy for the relief of 284
Throat affections, hydrastis in 27
 professional abuse of the 719
 troubles, opening of the mouth in 412
Thuja in hydrocele 700
 therapeutics of 667
Thymol hypodermatically 123
Thyroid, an active principle of 242
 and fibroids 411
 gland, sexual relations of the 445
 in cretinism 271, 371
 in goitre 92, 660, 732
 in lupus 442
 in myxœdema, with report of cases 129
 treatment, risks of 156
Tinea versicolor, sodium hyposulphite in 668
Tinnitus aurium from quinine, belladonna in 668
 grindelia squarrosa in 691
 the surgical treatment of 685
Tinnitus, pulsatory 256
Toads, the Surinam 502
Tobacco, the use of 316, 743
Tongue, foreign body in the 44
Tonsillar enlargement, how to reduce 281
Tonsillitis, a good local remedy for 636
 guaiac to abort 509
 hot water as a gargle in 377
Toothache, a remarkable cure for 637
 drops 604
 passiflora in 380
Total abstinence, a coroner on 767
Trachoma 96
Transfixion of left ventricle by sharp wire 638
Traumatism, dipsomania from 608
Tree-killer, the 307
Trephining in fracture of the skull 553
Trio, a valuable 442
Triplet labor, and acardiac twin 447
Trismus neonatorum, horse nettle in 121
Trochanter in man, ossification of third 510
Trusses, the choice and application of 526
Tubercular affections, baptisia in 219
 foods 499
 meningitis, prevention of 667
Tuberculin cattle test, the 532
 denounced 405
Tuberculosis and temperature 480
 causes of 341
 iodine in the treatment of 529
 nuclein in 216, 252
 of the bones—crepitus in 350
 of the genitals 735
 of the wrist 288
Tumor, an intra-intestinal 262
 of the breast and axilla 268
 of the superior maxillary 351
Tumors of mediastinum 262
Turkish baths and morality 307
 in mental disorders 289
Turpentine, action of on the kidney 640
 and urinary incontinence 411
 as a remedy in mumps 444, 509
 in burns 730
Typhoid and colon bacilli, differentiation of 465
 bacilli and osteomyelitis 446
Typhoid fever, abortive treatment of 401
 a suit for contracting 145
 an epidemic of 108
 and its treatment 751
 baptisia in 59
 belladonna to avert coma in 763
 complications and course of, with
 report of cases 641
 diet in 260
 differential diagnosis of 674
 fœtus killed by 767
 gangrene as a complication of 607
 history of a recent epidemic of 4
 in Rio Janeiro 675
 nuclein in 239
 overfeeding in 243
 perforation in 224
 phlebitis after 316
 suggestions regarding the management of 259
 symptomatology of 609
 temperature in 261, 380
 the pulse in 261
 the pupil in 262
 the treatment of 5, 6, 7, 675
 the Woodbridge treatment of 204, 732
Ulcers of the breast, thuja in the treatment of 635
 of the nasal septum, permanganate of
 potassium in 700
 sugar in the dressing of 124
United States Navy, medical department of the 275
Uræmia, cerebral 672
Uræmic convulsions 426
Uranium nitrate in diabetes mellitus 148, 573
Urea, the Haig theory of 544
Ureteral surgery, cocaine in 57
Urethral caruncle, diagnosis and treatment of 392
 pains, hydrangea in 412
 rupture through coitus 720
 thyroid extract in 636
Uric acid and epilepsy 703
Urinal, the care of the 692
Urinalysis and tapeworm 608

- Urinary incontinence and turpentine 411
 belladonna in 763
 ergot in 380
 mullein oil in 572
 of locomotor ataxia, senna in 412
 rhus aromatica in 635
 senna in 124
 spasmodic—passiflora in.. 92
 thuja in 667
- Urinary retention, tapping the bladder in 379
 secretion, influence of the vagus on 766
 sediment, shepherd's purse in 667
 suppression, digitalis poultice for 477
- Urination after labor 576
 painful—prescription for 604
- Urine colored green by carpet 160
 examination and the doctors 502
 talc in 704
- Urine, is there sugar in normal? 19
 the, in eczema and carbuncle 764
 the toxic principles of 749
- Uterine atrophy 19
 cancer, calcium carbide in 635
 diagnosis of 352
 symptomatology of 608
- See also* Cancer.
- Uterine disorders, helonias in 761
 displacement and pelvic disorders 575
 inertia, warm water in 49
 fibroids, age as related to 508
 conium in 27, 252
 electricity in 444
 operation for 430, 431
- Uterine hæmorrhages 426
 inflammation charged with all pelvic
 troubles 575
 irritability, asafetida in 573
 sedative, black cohosh as a 570
 tonic, black cohosh as a 570
- Utero-ovarian sedative, salix nigra as a 124
- Uterus bicornis, operation for 173
- Uvula, the, of the insane 575
- Vaccination and albuminuria 277
 and syphilis 189
 result of neglect of in Gloucester. 372, 591
- Vaginal discharge, irritating—treatment of 410
 pruritus, helonias in 761
 route to abdominal operation 313
 seborrhœa 283, 476
- Vagus, influence of the, on urinary secretion 766
- Variation in creosote pills 690
- Varicocele 320
 cause of 352
 new operation for 283
- Varicose ulcers, clematis vitalba in 220
 treatment of 507, 603
- Variola and tartar emetic 250
- Vas deferens, suture of 155
- Vaso-constrictor nerves of the heart, discovery of 286
- Vaso-dilating action of nitrate of erythrol and
 mannitol 153
- Vaso-motor stimulant, black cohosh as a 570
- Veils, effect of wearing 765
- Vegetable amyloid 590
- Vegetarian argument, a weak spot in the 304
- Venereal appetite, salix nigra to control 698
 disease a sufficient cause for divorce... 725
 no law to check the spread of.. 619
- Venesection and auto-infection 750
 at the beginning of the century 648
 in chloroform poisoning 154
 in pneumonia 318
 sometimes demanded 564, 572, 649
- Veratrum in eclampsia 314, 761
- Vertebral puncture 114
- Vertigo and the eyes 443
- Vibrio in hens' eggs 436
- Virgo intacta, examinations of 64
- Vitapathy, a judge scores 19
- Vivisection in Switzerland 437
 of idiots 49
 opponents of 277
- Vomiting after ether anæsthesia, carbolic acid
 in 477, 668
 chloroform for the relief of 57
 of perityphlitis, prescription for 569
 of pregnancy, faradize the vagi in 573
 treatment of severe 59
- Vulvar pruritus, helonias in 761
 prescription for 667
- Walking typhoid and perforation 224
- Warturg's tincture recommended 651
 by Lauder Brunton
 and Shoemaker.. 652
- War time experiences in Northern China 577
- Warts, prescription for 447
 treatment of 59, 220, 731
- Warty growths on the face, treatment of 28
- Wasting diseases, oleomargarine in 434
- Water as an antipyretic 697
 company indicted for manslaughter 366
 supply, purification of 178
 therapeutics of 83, 509, 668, 697
- Weaning of infants 665
- Weight of the new-born 211
- Wet dressings 572
- Whale oil in acne vulgaris 217
- Whine of infants, the 283
- Whiskey only for 90 days 556
- Whooping-cough, a spray for 476
 bromoform in 156
 cocaine in 92
 oil of amber in 507
 Jamaica dogwood in 571
 prescription for 656
 saw palmetto in 91
 wild thyme in 59
- See also* Pertussis.
- Wine compounds, perniciousness of 445
- Windsor Medical Association, proceedings of the 46
- Witch hazel for burns 763
 preparation of 249
- Woodbridge treatment of typhoid fever 204, 732
- Women and the bicycle 352, 702
 as doctors, the limitations of 340
 medical education of 489
 seats required for 83
 who do not marry 82
- Workmen on buildings, a law for the protection
 of 563
- Worm syrup for children 410, 475
 the Guinea 541
- Worms, death due to 224
 intestinal—anthelmintics in the treat-
 ment of 378
 prescription for 444
- Wound-closure in abdominal surgery 292
- Wound-dressing, a new 405
- Wounds, treatment of 219
- Yeast cells and moulds 445
 in diabetes 123
 nuclein in tuberculosis 252
 the preservation of 529
- Young, Doctor Thos., a forgotten scientist 181
- Zinc salts, effects of 442
- Zona, treatment of 188



The Medical Age.

VOL. XIV.

DETROIT, JANUARY 10th, 1896.

No. 1.

Original Articles.

FRACTURED CLAVICLE.*

BY E. M. MOORE, M.D.

The fracture of this bone occurs so constantly at the middle third, that I propose in this paper to speak only of this form, leaving out of consideration even those cases where the break is into three parts or where it is split near the joint. The symptoms are very constant. The shoulder goes downward, inward, and forward, in obedience to the action of gravity, the shape of the thorax, and the tonic power of the pectoralis major muscle, and as a sequence of this altered position the inner fragment almost surely rides the outer one. It is of this common condition only that I speak.

It is well known that the treatment of this fracture is conducted generally upon two plans, with a great variety of modifications of detail. One is by the use of the axillary pad, which is the fulcrum for the humeral lever; the other is by the figure-eight bandage, which draws the shoulders backward by passing around the axilla. There are other plans, but these prevail.

I regard the treatment of the clavicular fibres of the great pectoral as the key to the solution of the difficulty that has thus far hung around the treatment of this fracture. There are other considerations, however, among the principal of which is the position of the scapula. When we place a patient in a chair, and, standing behind him, seize the upper part of the arms near the shoulder and draw them backward, the replacement of the fractured ends becomes perfect, almost with certainty. But when, with more force, we use the axillary pad or figure-eight bandage,

the restoration is so rare that many surgeons assert its impossibility. I criticise the axillary pad for its relaxation of the clavicular fibres of the great pectoral; if this results from its action, we lose the antagonist of the sterno-cleido-mastoid, and therefore, no matter how high we elevate the shoulder, the end of the inner fragment will be the higher. But if the shoulder is carried backward, and the clavicular fibres of the pectoral muscle are rendered tense, the riding inner fragment will be brought down, thus securing perfect apposition. This results from the well known treatment by recumbent posture, and from the attitude in the chair, as above described.

The attachment of the great pectoral to the humerus, it will be remembered, is quite peculiar. The muscle makes a half-turn upon itself and is inserted for a full inch and a half along the bicipital groove, the thoracic fibres running to its upper and the clavicular to its lower part. It must be obvious that the tension of the fibres in the same muscle will vary according to the position of the humerus. If the arm is carried backward it moves from the shoulder as the fulcrum, the lower portion of the muscular insertion describing the larger circle, thus involving a greater tension of the clavicular fibres. By this tension we antagonize the sterno-cleido-mastoid, and if the shoulder be carried back far enough the apposition will be perfect, provided no inequality of the fractured surfaces prevents—which will often happen in oblique fractures, even when the length is fully obtained.

Before presenting a plan of treatment, I will criticise, in the first place, the axillary pad. As the large end of this pad is placed upward, it operates of course upon the humerus just at the border of the axilla. Its *rationale* is that of a fulcrum, for the humerus as a lever. The motion on the fulcrum, if a line, is *nil*. The pad is opposite the attach-

*Read before the New York State Medical Society in 1870. [Published by special request.—ED.]

ment of the clavicular fibres of the pectoral muscle. At the point of their insertion there is no motion, no matter how much force we may use. The shoulder is thrown out as far

for producing a similar relaxation of the clavicular fibres of the pectoral muscle. This bandage acts upon the lower border of the muscle, and the more tightly it is drawn the



as the pectoral muscle will allow. The upper end of the bicipital groove is the point of insertion for the muscle that is put on the stretch, because it is removed from the ful-

more will it curve its axillary border, and incidentally shorten it. The fibres of the clavicular portion are not bent, and of course not shortened. Thus they are inevitably re-



crum. The clavicular fibres of the pectoral are relaxed and kept so, and the sternocleidomastoid draws up the inner fragment.

I also criticise the figure-eight bandage

laxed by the drawing in of the humerus. It will thus be seen that, in the effort to carry the shoulder out by the axillary pad or backward by the figure-eight bandage, the condition of tension of the thoracic and relaxation

of the clavicular fibres of the pectoral muscle results. The indication, therefore, to be fulfilled, is to reverse the action, and, by carrying the humerus backward, make tense the clavicular and relax the thoracic fibres of the pectoralis major muscle. This motion is at the shoulder-joint as a pivot. The tension of the pectoral fibres is now reversed—the lower portion of the bicipital groove is moved through a greater circle than the upper, and the clavicular fibres are rendered tense in proportion to the distance the humerus is carried back.

No plan that leaves the humerus perpendicular can make the clavicular fibres tense.

The scapula must also be moved as near the spine as can be borne, for the obvious reason that the thorax is most salient at this part, and a sliding of the scapula thus produces the greatest movement of the shoulder backward—one of the most natural indications. As it goes back, it also goes up.

I also make criticism upon the effect of the shawl, Fox's or Dessault's bandage, in their operation on the scapula. If the hand be placed upon the inferior angle of the scapula, and the shoulder raised, keeping the humerus perpendicular, it will be seen that the scapula moves forward upon the thorax at its lowest border. (This criticism, however, does not obtain with reference to the figure-eight bandage.) This is in the wrong direction, and, although it is the lower angle, it nevertheless allows the whole scapula to come forward, and thus shorten the broken clavicle.

The obvious indications in the treatment of this fracture, therefore, consist in the use of any bandage or posture that will carry the humerus backward and hold it toward the side. The effect of carrying the arm backward is to move the scapula toward the spine, thus fulfilling the first important indication. But besides this, as stated above, the clavicular fibres are rendered tense by this attitude, and thus the only remaining indication is fulfilled. Some aid may perhaps be obtained by lifting the shoulder from the elbow, but this is subordinate.

In order to obtain the results stated, I have resorted to various devices, but to treat fractures well we must be able to find our appli-

ances in every house, and after much experimenting I have concluded to use a shawl or piece of cotton cloth, which, when folded like a cravat, eight inches in breadth at the centre, should be about two yards long. With this bandage held at its centre in the palm of his hand, the surgeon seizes with this hand the elbow of the patient which corresponds to the broken clavicle. The two ends of the bandage hang to the floor. The one falling inward toward the patient is carried upward, in front of the shoulder and over the back, making a spiral movement in front of the shoulder. This is entrusted to an assistant. The other end is then carried across the forearm, behind the back, over the opposite shoulder, and around the axilla. This meets the other end, which may be carried under the axilla and over the shoulder of the opposite side, thus making the figure-eight turn around the sound shoulder. This twist, it will be seen, makes also the figure-eight turn around the elbow of the affected side. I therefore style the bandage "the elbow figure eight."

The forearm should be sustained by a sling which raises it to an acute angle, in order that gravity may assist in moving the whole arm backward. This is best done by a simple strip three or four inches wide, which may be pinned to the shawl at the shoulder, or by a sling across the opposite shoulder and behind the back. The former is much to be preferred. Any tendency on the part of the shawl to slide from the shoulder may be arrested by a pin thrust in at the crossing. The shawl at the elbow is kept in place by folding the upper part that fits the arm and securing it by a pin. This makes a sort of cup for the elbow.

The bandage is worn with ease, except on the sound shoulder, which is vexed by the pressure of the ordinary figure-eight fold.

It will be observed that the shawl, as it passes in front of the arm, does not press on the axillary border of the pectoral muscle, and therefore avoids the objection of the ordinary figure-eight bandage. As it passes over the forearm, and over the opposite shoulder, it lifts up the arm like the ordinary shawl bandage.

Rochester, N. Y.

TYPHOID FEVER—HISTORY OF A RECENT EPIDEMIC.*

BY P. A. GORDON, M.D.

We have recently passed through an epidemic, or epidemic, of typhoid fever, which had for its centre Junction City, with a radius of about three miles. I am a believer in the germ theory of the cause of the disease; I believe it is essential to its production that the *bacillus typhosus* enter the economy.

Bartholow† states that the germ "does not originate *de novo* in stagnant water or decaying vegetable matter, but there must be typhoid matter furnishing the material for a new growth, and when thrown on the ground, in vaults, cess-pools, etc., its multiplication is very rapid, and the excretion from one patient may poison a large community." Very elaborate articles appear also in both Reynolds' and Pepper's Systems of Medicine, to prove, or disprove rather, the spontaneous origin of the disease, but they antedate the present perfect uses of the microscope.

Moreover, good authorities declare the poison has been known to remain in the earth, in privy vaults, sewers, etc., for twelve and fourteen years, and then induce the malady in persons exposed to it.

There are good and sufficient reasons for believing that the original and chief, if not the only, source of contagion in the Junction City epidemic was water from one certain well. The greater portion of the town is built on a rather low, flat surface, with slope sufficient, however, to form a tolerable drainage on the north bank of Rush Creek, and the streets on which nearly all the dwellings are located run east and west. The buildings front either to the north or south, necessitating the location of privies, etc., on the alleys, which exposes the wells on the premises of those whose residences face the south, to the drainage not only from the same lots but from the lots to the north as well. As there is no artificial sewerage system, all the evils of surface drainage and the percolating process exist. The earth to the depth of some four to six feet is composed of sand and broken rock, beneath which is found

"hard pan," a blue, firm, tough earth, which is superimposed upon shale or seamy rock; and from the latter is obtained most of the water employed for domestic purposes, which would be comparatively free from infection were it not for the fact that during the wet season much moisture finds its way through the sandy portion of the surroundings. As the dry weather in 1894 was prolonged, the quantity of water in the wells lessened, and as a result effete matter bearing the elements of infection became more concentrated, and increased illness was a logical sequence.

Those who have made sanitary matters a study and a profession inform me that in soil like the four or six feet of our surface the drainage embraces eight to ten feet to one foot in depth,—that, for instance, a well twenty feet deep will drain a surface whose radius is 160 to 200 feet. Lots are 132 feet deep, and the wells anywhere from eighteen to thirty feet; thus no well is beyond 132 feet from a privy vault, which at best is merely a shallow hole dug in the ground, that of course overflows in wet weather. When too full for further use, another hole is dug alongside and the contents dumped therein.

Ten years ago I suffered a severe attack of typhoid, contracted through carelessness while attending patients during an epidemic in Dickson-ton. Up to that time the disease was rather a novelty in our town and vicinity. The excretions were not disinfected, but deposited in a vault on the north side of the lot, 155 feet from the well; and I have ever insisted this was the original source of infection in the late epidemic. In evidence I cite the case of Charles B—, who resided on the lot which contains the well, and who three years ago died from intestinal perforation during the second week of an attack. His excretions also were not disinfected, but dumped into a vault on the same lot, only ninety feet north from the same well. If any doubt exists as to the infection reaching the well from this point, it is but necessary to point to a swail less than 200 feet east of it, which, until within the past few months, ever since the town came into existence, was the catch-basin, so to speak, of all the adjacent surface drainage for several blocks. The water from this well is noted for clearness, coolness, and taste, and consequently was used by many

* Read before the Perry County (Ohio) Medical Society.

† Practice of Medicine.

families, business houses, and individuals, who would go to considerable inconvenience to obtain it.

In the first weeks of July, 1894, there were twelve or fifteen down with typhoid, all of whom regularly patronized this well; and if the effort to close it up had succeeded, I believe the outbreak would have been limited to the pioneers of the epidemic, with the exception perhaps of those who would contract the disease in any event through disobedience or indifference. Where heed was taken, and co-operation of nurses obtained, the malady was limited to those first taken. Two saloons and one restaurant continued for some time to use the water without the knowledge of the authorities, and one or two families actually obtained it stealthily, and thus aided to disseminate the disease; so all in all there were over one hundred cases, though fortunately the mortality was small, there being but four deaths.

Many of the cases were typical, some mild, others complicated, and two or three presented induration of cervical and parotid glands. The first fatal case was a child of three years, in whom death was due to exhaustion resultant upon suppuration of glands. The second was a man of forty-five years, in whom peritonitis supervened, followed by perforation—in this instance death occurred in the third week, thirty-six hours after the hæmorrhage, and was attributed to milk curds, arising from disobedience in the matter of feeding on the part of the nurse. The third suffered perforation on the sixty third day, which was followed by circumscribed peritonitis; he apparently recovered from the inflammation, but lacked the necessary vital force and so succumbed from exhaustion. The fourth was a lady about sixty-two years old. At the beginning of the fourth week she, to all appearances, was progressing toward recovery, when hypostatic pneumonia developed, followed by erysipelas of face, neck, and throat.

There was one case of multiple abscess which delayed convalescence very materially; also a very severe case of phlebitis of left hip, thigh, and leg, the swelling being enormous and fearfully painful. Meningeal inflammation developed in a girl eighteen years of age, a patient of my colleague, Doctor Moody; the

symptoms were characteristic of cerebro-spinal meningitis; yet recovery was complete though delayed. In two cases—father and son—tuberculosis manifested itself during convalescence, and both recently died.

Now regarding the treatment, which is of most interest to both patient and physician. Authorities give but little encouragement in attempts to supplant *vis medicatrix naturæ*; in utter despair they fear to formulate a line of treatment that will give any assurance of efficiency, particularly in shortening the duration of illness. Elimination of the poison is left to the emunctories and its own suicidal tendencies. Thirty years ago, Austin Flint, Sr., admitted "the known resources of therapeutics do not afford reliable means for the arrest of these fevers, or even for shortening the duration of the febrile career." The only hope he expressed was of ability to reduce mortality. Huss, Chambers, Richardson and Murchison pinned their faith to the mineral acids, giving preference to muriatic and nitric, separately or in combination, diluted in accordance with the Pharmacopœia, of course. Geo. B. Wood had a strong *penchant* for turpentine, internally and locally, which certainly has been of great service, especially where the tongue was dry and meteorism was present. Flint treated the disease symptomatically, by the aid of calomel, opium, digitalis, turpentine, acids, sodium salts, bismuth, quinine, whiskey, enemas, etc., as indicated. Bartholow remarks that "though typhoid is a specific disease, we have no specific remedy. A treatment has originated in Germany which is known as specific, and mercury and iodine are the specifics." But trace the history of these remedies through the different epidemics in which they have been employed, and it is found that no claim is made that they shorten or abort the disease—only that they are the best yet devised to keep down the death-rate. Bartholow himself is somewhat more scientific in that he recommends tincture iodine and carbolic acid (in proportion of two parts of the former to one of the latter), one to three drops thrice daily; he also advises hydrotherapy, quinine, and digitalis, as antipyretics. But his antiseptics are wholly inadequate, and increasing the amount of carbolic acid is apt to cause bad results. His combination of laudanum, bismuth subnitrate, and

carbolic acid, however, is not to be lost sight of as a remedy for excessive diarrhœa. Thus one is left with no means of shortening the usual course of the fever, which may run anywhere from four to ten weeks!

Harley* also treats the disease symptomatically—for constipation, some preparation of mercury, either calomel or mercurial chalk; for diarrhœa, vegetable astringents, opium, bismuth, enemas of starch-water and laudanum; for abdominal pain, hot fomentations, turpentine stupes, poultices, etc.; for tympanites, bandages, stupes, asafoetida enemas, and rectal tube; for intestinal hæmorrhage, ice to right side of abdomen, and gallic acid, perchloride of iron, turpentine, opium and lead acetate internally; for cerebral disturbances, leeches, cold applications, opium—I would prefer the bromides to the latter,—stimulants (sparingly); to reduce temperature, cold water, quinine, salicylic acid. Still one is left without hope of shortening the duration of the malady.

The most systematically arranged and therefore the most comprehensive plan of treatment to be found appears in Pepper's System of Medicine, but here also one encounters the omnipresent dogma, that "the treatment must be in large measure symptomatic." He adds, it is true, that "various specific treatments have been proposed, but up to the present the results obtained, when they have been fairly tested, are not so favorable as to induce the body of the profession to adopt them to the exclusion of all other methods." Quinine, venesection, and hydrotherapy he enumerates as the remedies for which chief claim must be made. His suggestions and insistence in matters of hygiene and management are, however, full of good, hard common sense:

"Place the patient in bed, the bed in a large well ventilated room; allow no one in but those in attendance; keep quiet as nearly as possible,—no whispering, no unnecessary disturbance. Always disinfect the stools, with either a strong solution of sulphate of iron (a pound to two or three gallons of water), or carbolic-acid solution (one to twenty or one to forty), and put sufficient in the bedpan to cover the passage, and allow

to stand at least a half-hour. Bed-linen and clothing when removed should be placed in an antiseptic solution or immediately boiled. Patient must not be permitted to leave the bed for any purpose. Liquid diet at regular intervals, milk, barley-water, broth, rice, starch, etc."

To all of the foregoing I enthusiastically subscribe; but his employment of drugs is very conservative, limited to symptoms requiring special treatment. There is still no suggestion that the days of sickness can be in the slightest curtailed.

In a paper on "The Treatment of Typhoid Fever," read before the Chicago Medical Society, Doctor Elmer Lee says:

"The disease is developed in the intestinal canal. There is a poison there which, if it could be removed before it is absorbed into the blood, life and even health would be spared. Allow this poison to remain, and it is drawn into the circulation, and very soon the whole body feels the depressing effect; even at this time, if the poisonous juices and germs which the bowel contains can be either neutralized by suitable remedies, or washed entirely away by a stream of flowing water, the disease can be checked, the patient spared, and health restored. Without waiting for development of the symptoms, the very first proposition is to make the patient surgically clean, which means the free and abundant use of water internally and externally. The bowels must be drenched and cleansed by a copious douche of hot soapy water, made to pass into and out of the lower bowel until the contents are cleared away and the returning water comes back as clear as it entered; the relief that follows such ablution is a delight to the physician and of greatest comfort to the patient. Fears were formerly entertained, as they yet are by some, that the running of a large volume of water into the bowels of one ill with typhoid might cause rupture: but no harm has ever been done, nor is there any danger, so this fear may be forever dismissed. The temperature of the water used for cleansing and washing the bowels should always depend upon the temperature of the body: if there is high fever, it is more agreeable and useful when it is cool, say 75° F.; but if the patient is chilly, or has a low temperature, the water should

* Reynolds' System of Medicine.

be at blood heat, nearly 100° . During the first week of illness the irrigation of the bowels should take place in the morning, and again in the evening of the same day; after this one douche of water should be given each day until convalescence. Bathing of the body must be performed at regular intervals and by such a system as may be convenient and suitable to the individual. The internal treatment is uncomplicated, safe, and useful, the basis thereof being cold water, and plenty of it, always, to drink,—water is cooling, refreshing, and assists to cleanse the economy of the poison which is the cause of the illness."

Doctor Lee also concludes that "stimulants and drugs are injurious, without exception"—a statement with which I take issue. I believe I know the utility of drugs in the treatment of this disease, and that they hold a place of essential importance is without peradventure; and the antiseptics which he suggests be given internally are certainly as much "drugs and stimulants" as any other remedies. Finally he declares he has for five years used no other treatment than that just outlined, and his "success has been very gratifying;" yet he is not able to shorten or abort the disease, consequently his teachings are self-evidently defective.

Next comes John E. Woodbridge, who, I presume, needs no introduction, as he is a prolific writer, takes active part in medical societies, and is very clamorous that his plan of treatment be recognized; and his efforts appear to be making considerable impression on the body professional.

After having eight or ten patients under treatment for ten days to two weeks, and everything portending prolongation—realizing, too, these were but the beginning of an epidemic—I considered that anything that gave promise of shortening the duration of the disease was desirable and at least entitled to a trial. The difficulty encountered was to obtain the remedies which entered into Woodbridge's prescriptions; but, recognizing the treatment as an antiseptic one, I had recourse to a mixture containing eucalyptol, thymol, menthol, and benzoic acid. This controlled the symptoms fairly well, with no bad effects; in fact, it caused the blank expression and dusky appearance of the features to dis-

appear, and the mind to become tranquil; the tongue cleaned; skin assumed its soft, pliable and elastic condition; appetite returned, and patients slept well—they assured me they did not in the least feel ill, but rather as if they ought to get up. The elevation of temperature continued, however, but was not high, never going beyond 102° ; convalescence did not begin until from four to six weeks, but when once established led to the speedy reinstatement of normal health. Later on I gave the remedy more frequently, with plenty of water to drink, and occasional broken doses of calomel. This treatment materially shortened the duration of pyrexia, and proved to my satisfaction that I was on the right line, presenting, as it did, a marked contrast to the old treatment, which at the same time I was employing for other cases.

I was still very anxious to test the Woodbridge treatment, and finally succeeded in obtaining the necessary remedies. The first case in which I used it was a child of thirteen years, who had been ill six days with all the characteristic symptoms of the disease, the temperature ranging from 103.5° to 105° . On the first day of Woodbridge treatment she had diarrhœa; temperature 104° ; pulse 108. She convalesced on the twelfth day.

My second case was a Mrs. B—, aged thirty-nine years, mother of several children; no doubt as to diagnosis, as her husband and one child were in bed at the time, and another child was convalescing. First day, pulse was 100, temperature 102° . Temperature reached normal on eighth day, and so remained. Convalescence uninterrupted.

Case 3.—Rose S—, aged thirteen, began treatment on tenth day of sickness. Pulse 108, temperature 102.5° . On eighth day temperature normal, and so remained.

Case 4.—Samuel R—, aged seventeen years. Had been ill a week; pulse 94, temperature 103° . Temperature reached 99° on twelfth day, and was the same on fourteenth day. I did not see him afterwards. In this case recovery or restoration of normal temperature was delayed by inability to secure the remedies, which were interrupted for twenty-four hours.

Case 5.—Arthur F—, aged ten or twelve years. First day, pulse 134, temperature 101.2° . Symptoms characteristic; four others

of the family in bed with the disease at same time. Temperature reached normal on sixth day.

Case 6.—Ed. M——, aged thirty-six. First day, pulse 104, temperature 102.5°. Normal temperature on sixth day, permanent.

Case 7.—Mrs. M——, aged thirty-five. Saw her on third day of sickness, in bed; temperature 103.5°, pulse 120. Temperature reached normal on tenth day.

Case 8.—Pearl M——, aged nine years. First day of treatment, temperature 104°, pulse 120. Discharged on sixth day.

I used the Woodbridge treatment in ten or twelve other cases whose record I have mislaid, but in every case that was seen early the result was the same as in those just reported. In cases where the treatment was begun late, say on eighth or tenth day, they ran the usual length of time, but the symptoms were much modified, and the expression of the invalids was normal, the mind tranquil, etc.; in short, they did not appear sick. This treatment was not used in any of the fatal cases except that of Mrs. McG——, to whom I was not called until the tenth or twelfth day; even here the temperature was kept down to the "safety notch," and on my last visit preceding the development of hypostatic pneumonia her condition was such that I ventured to predict a speedy recovery. And I may here state that I was unable to see her for seventy-two hours on account of a tardy case of labor; no messenger was despatched to notify me of the unfavorable change in her condition, which was noticed, as claimed by the nurse, hours before my arrival.

In all cases I permitted only liquid diet, and all the water desired. I was always careful to enjoin against using water from well or spring which they had been accustomed to, unless it was first boiled. If the bowels did not act every twenty-four hours, I employed an enema or a little calomel.

Two cases illustrate the effect of disobedience and deception of the nurses. There were five of the family in bed at the same time—the parents, two sons, and a grandchild. I suspected the water they used, since they lived three miles from town. Mrs. F——'s temperature reached normal and below on the

ninth day, and remained so for twelve days, when symptoms of reinvasion manifested themselves. The son, aged thirty-two, had normal temperature on the seventeenth day, and this remained for eight days, when relapse occurred. Treatment was withdrawn in the mother's case and diminished in the son's. The nurse admitted they had been allowed condemned water. They were placed again on treatment as before, and permitted only sterilized water, when recovery began in four or five days and continued without interruption.

My paper is already too long, but I must reaffirm that, for the present at least, I am a firm believer in the antiseptic and eliminative treatment of typhoid fever—that it is the only treatment as yet worth considering, inasmuch as it is the only one that offers any chance of shortening the career of the malady.

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SOME SEQUELS OF LA GRIPPE.*

BY F. C. HEATH, A.M., M.D.

The general practitioner who for the first time sees the various manifestations of influenza, must certainly be interested in the complications affecting special organs to which he has given but little study; therefore I call attention briefly to a few of the sequels that present themselves to the oculist and aurist.

Eye affections follow or complicate influenza much less frequently than do those of the ear; yet they are not very uncommon, and occur in various forms—the conjunctiva, uveal tract and the tissues of the orbit are especially liable to be affected (Poole).

Bull has reported a case of purulent inflammation of the eyeball with orbital cellulitis commencing on the second day of an attack of influenza. A case of purulent ophthalmia recently came under personal observation. The lady presented all the usual symptoms of influenza, and was treated for this malady by her family physician. When I saw her there was no indication of existing gonorrhœa, yet perforation occurred with resultant

* Read at the Detroit meeting of the Mississippi Valley Medical Association.

loss of sight. One of the eyes of her little boy, who assisted in caring for her, became infected also, and passed through a course of violent purulent inflammation, an ulcer of the cornea perforating high up but leaving useful vision. I am not prepared to state positively that influenza was the cause in the mother's case, for she was a washerwoman and possibly might have handled infected clothing; but the association of the symptoms of influenza, the subsequent purulent ophthalmia, and the fact that others have reported such cases, suggest this as a possible solution.

A case of serous iritis in a young farmer, still under observation, undoubtedly arose from influenza. The patient had been treated for *la grippe* by his family physician, the symptoms being unmistakable. When referred to me, both eyes were badly affected, pupils irregular and contracted, firm adhesion to capsule of lens, deep anterior chambers, very large deposits on posterior layer of cornea—the largest I ever saw,—and vision reduced in right eye to $\frac{1}{100}+$, in left eye to $\frac{1}{200}$; also for a time paralysis of the muscles of the left side of the face obtained. There was no history or evidence of specific disease. Under increasing doses of potassium iodide and moderate doses of potassium acetate, for a time followed by Basham's mixture and the local use of atropine, there was marked improvement. Now the facial paralysis has nearly disappeared, the corneal deposits are largely absorbed, some of the adhesions broken up, the pupils considerably dilated, and vision improved to R.E. $\frac{1}{40}-$, L.E. $\frac{1}{50}-$. This case is unique, at least in my experience.

The ear affections arising from *la grippe* are so common that any practitioner with much experience in recent epidemics must have observed them. Dench calls attention to the effects of influenza on the auditory nerve, but the most frequent lesion is suppurative inflammation of the middle ear—probably, in the majority of instances, secondary to the throat affection. This inflammation is characterized by great severity and persistency, the pain being usually intense and hard to control, the suppuration prolonged, and hearing much impaired; there is strong tendency to the formation of mastoid abscess with all its dangers, in which case

Politzer advises early operation. In the recent epidemic of influenza quite a number of these cases came under my charge. The mastoid was undoubtedly involved in a number of them, but fortunately all recovered without operation, although several were visited more than once with a view to immediate operation should such be required. The hearing in one case was so profoundly affected that we had to communicate mainly by signs. As a rule the pain was intense and the general symptoms severe. In several cases there was considerable swelling over the mastoid, and in a few, also, at other points about the ear, especially in front; the mastoid was tender in a still larger proportion. There was insomnia in some, stupor and other cerebral symptoms in others:

The treatment employed was hot salt-water syringing, with anodynes and febrifuges as indicated, together with local use of iodine, blood-letting—Bacon's artificial leech being applied to the tragus and mastoid,—and potassium iodide pushed according to the suggestion of my friend Doctor Cline. Occasionally it was necessary to perform a paracentesis of the drum-membrane, and in one instance a few incisions were made in the floor of the auditory canal. Hot applications were frequently used to the mastoid, and were in one case replaced by an improvised Leiter coil for cold water. The results were all very satisfactory.

These cases are reported to emphasize three things: That operation upon the mastoid is not so generally necessary as one is led to suppose: The great relief from local blood-letting with Bacon's artificial leech, and its good effect even in mastoid cases: The great advantage of pushing the potassium iodide.

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JABORANDI AS A DIAPHORETIC.

BY N. C. MITRA, M.A., M.D.

What are the diseases in which the diaphoretic action of the drug can be best availed of, since its action if long continued and in increasing doses is apt to tell upon the pulse?

It is indicated in those diseases where the use of a reliable diaphoretic is required, but certainly should at all times be used with the

greatest caution, and requires the constant attention of the medical advisor to watch its effects. It is scarcely ever used for its diaphoretic effect in fever, its depressant action being a great deterrent; moreover, we have other diaphoretics which better serve this purpose. The diseases in which its action is best utilized are those affecting the kidneys, and then only when the action of the kidneys is in abeyance from some temporary cause; it is of no use when the kidneys are permanently and structurally deranged. It is of the greatest value, perhaps, in acute Bright's disease where a sudden chill or exposure contracts the arterioles of the skin, and the blood thus driven off is thrown upon the kidneys, which, in consequence, become congested. Congestion interferes with the normal function of any organ, and when occurring to the kidneys causes the excretion of the urine to become lessened and loaded with albumen. Now it is useless trying diuretics at this stage, for they either increase the blood-pressure or stimulate the organs to increased action. Bearing in mind that any extra stimulation of the congested organs is attended with still further diminution in the quantity of the urine, and the general condition of the patient showing no amelioration, the rational treatment is to relieve the congested state by derivative action, and then, when the organs are in a fit state, diuretics may be prescribed with good results. The two ways of effecting this derivative action are by the bowels and the skin. The first may be brought on by the use of hydragogue purgatives, which are, however, often contraindicated, inasmuch as excessive purgation is apt to weaken the heart. In the second instance diaphoresis is necessary, but the so-called diaphoretics are, as a class, not very reliable. The only certain agent is jaborandi, provided it is given in sufficient doses. The tincture is preferred to the alkaloid, as the latter has a decidedly lowering effect upon the circulation, yet it must be admitted that the alkaloid is more certain in its effects.

Two cases, both children, recently came under my observation. They had puffiness of the face and eyelids, but there was no fever; the urine was albuminous. They were put on tincture jaborandi, and improvement followed in a few days. The swelling

of the face gradually went down, but they passed from observation before I could satisfy myself of the complete disappearance of albumen from the urine. Subsequently I learned they were doing well.

A third case was an adult sent to me because of puffiness of the face and eyelids. On boiling his urine, the whole mass was nothing but solid albumen. He, too, was treated with tincture jaborandi, and before a week had elapsed the puffiness almost disappeared and the quantity of albumen diminished by one-third. In a fortnight no albumen could be found in the urine, and all puffiness had completely gone down. He was then put on a tonic, and was discharged cured a week later.

The next malady in which jaborandi is indicated is uræmia, and the best method of administration is in the form of pilocarpine given hypodermically; but the effect must be watched with care.

In cholæmia where the excessive passage of the bile through the kidneys irritates the organs, and in consequence sets up a congestive state, jaborandi can be used with advantage to relieve the embarrassed action of the kidneys; this congestive state might bring on uræmic poisoning if the organs were not relieved. In case of cholelithiasis, and uræmic poisoning set up by jaundice, pilocarpine might be used either internally or hypodermically.

Ranchi, Bengal.

ANGEIO-NEUROTIC ŒDEMA.*

BY J. J. MOONEY, L.S.A. (LOND.).

Until a careful description of the disease was published in 1882, under the above title, by Doctor Quicke, this disease was, no doubt, generally denominated "dropsy," and passed over without further notice. Since Doctor Quicke's time, however, numerous observers have published cases and made careful studies of the phenomena of the disease—notably Osler, Jamison, Starr, Milton, Matas, and others.

From the various descriptions of authors it is possible to obtain a very fair clinical pic-

* Read before the Wayne County Medical Society.

ture of the disease, and as the case which has furnished the text for this paper was fairly typical in most respects I cannot do better than introduce it.

Whilst attending a hysterical lady a little time since, I was asked to look at her daughter, a girl nine years of age, who had had a "bilious attack" and whose hands had thereafter swollen in a peculiar way. She was a fair, anæmic child, rather overgrown and poorly developed for her age. Her tongue was slightly coated, and she complained of having vomited several times the day before, but there had been no emesis for twenty-four hours when I saw her. Particularly was urged upon my attention the sudden way the backs of her hands had swelled up. The dorsal aspect in both appeared very puffy and swollen, and pitted slightly on pressure. The skin was normal in appearance, or rather paler than usual, and there was no itching or pain, only a sensation of fullness and tension. The swelling had made its appearance and attained to its present proportions within an hour or two, and was sharply limited, not extending either up the fingers or onto the wrist. The bowels were freely open, and there was no albumen in the urine. Temperature was practically normal.

I prescribed a mixture containing bicarbonate of soda, bismuth, and potassium bromide, and the swelling gradually disappeared in about two days, but five or six weeks later recurred. On the second occasion the hands were in the same condition as before, except that the swelling spread a little more onto the fingers; but there was no vomiting this time, only a sense of gastric discomfort. I gave a mixture containing iron and strychnine, but it was three days before the œdema passed off, and then she said the hand felt swollen though the swelling had entirely gone. Directly after this the family moved out of the neighborhood and I lost any further opportunity of seeing the case.

An œdema similar in appearance to this might be due to altered blood conditions, such as the anæmia which was present, but the extremely localized character of the swelling and its sudden appearance and disappearance are against that; it might be due to thrombosis of a vein, but there was no discoloration of the skin and no apparent cause

for thrombosis, and the sudden disappearance and recurrence in the same place precludes such factor. The age of the patient, and the rapid onset and departure, are also against any organic change in the vessel-walls.

Quicke thought it due to functional vaso-motor disturbance which temporarily increased the permeability of the vessel-walls, but it might equally well be due to a temporary obstruction of the lymph-channels leading from the affected part. Mental and alcoholic excesses, bodily fatigue, grief, anxiety, fright, injuries—even of a slight degree,—various articles of food, fish, apples, etc., have all been mentioned as factors in the causation. At any rate it is markedly hereditary, though in the case just cited neither the mother nor any member of the family whom she knew had suffered in this way; the mother herself, however, was very hysterical, and there was a marked history of hysteria in the family, so that the child's nervous system was in a fair way to be easily affected by any disturbing element.

Hysterical or nervous patients often complain of the hands or feet feeling swollen when no swelling can be detected in these parts on examination. This is worth bearing in mind in the consideration of the feeling of swelling which was present in the above case after the real œdema had subsided.

In *Medicine* for April, 1895, Doctor Baum describes an interesting case of gangrenous herpes zoster in an hysterical patient, which he considered arose from vaso-motor disturbance of the part affected; his patient also had gastric trouble, in the shape of a dilated stomach. In regard to the part the gastric disturbance plays in angeio-neurotic œdema, it would have been interesting to know whether lavage and improvement in the condition of the alimentary canal would have benefited the local lesions in his case.

With regard to the gastric disturbance in angeio-neurotic œdema, one or other of two widely different views may be held: One is that the gastro-intestinal disturbances are due to a circumscribed œdema in the mucous membrane of that canal, similar to that which occurs in the skin—a view which is upheld by the fact that the tongue, pharynx and larynx may be attacked, and why not the

parts below?—Parenthetically I may mention that two of the cases reported by Osler died of œdema of the glottis: The other view is that the gastro-intestinal disturbance is the cause of the œdema, as in urticaria, dermatitis, herpetiformis, or erythema.—All these complaints, at least in certain cases, are produced either by poisons manufactured in the system owing to a disordered state of the alimentary canal or pregnancy, or by poisons introduced from without into the alimentary canal; and these poisons probably act in a manner analogous to the way lead and other poisons which affect the nervous system act, only, instead of picking out the motor fibres of a nerve, as lead does, they attack the vaso-motor, sensory, or trophic fibres.

Personally, I take the latter of the two views just given, as it seems to me if the gastric trouble is due to a condition of the mucous membrane similar to the œdema in the skin, we are without a reason why the disease should come on at all. Of course certain persons would be more easily affected by the toxins above mentioned than others; in other words, they would have a peculiar idiosyncrasy in regard to these poisons, like some people have toward certain drugs.

Poisons which affect the skin by acting on the vaso-motor nerves do not all act in the same way.—Thus, a poison may be absorbed from the alimentary canal and may act either directly or reflexly on the vaso-motor centres and thus give rise to more or less extensive lesions; on the other hand, in case it is a poison which is eliminated by the cutaneous capillaries, it may only have a local paralytic or irritant effect on the vaso-motor nerves or vessel-walls at those points which are less capable of resisting its influence than others. Paralysis of the vaso-constrictors or vessel-walls, and irritation of the vaso-dilators, secure practically equal results, although achieved in different ways. In certain cases the poison may act both centrally and locally. I will now give a few examples of cases where poisons absorbed from the alimentary canal or elsewhere in the system affect particular classes of nerves:

On commencing to feed a patient with nutrient enemata, it is not uncommon for a sudden erythematous or urticarial rash to develop, that is supposed to be due to the

absorption of poisonous fœcal matter softened by the enemata; it disappears when the continued injections have thoroughly cleansed the bowel. A very interesting case of this kind, apparently allied in this manner to angeio-neurotic œdema, is reported by Doctor Hale in the *British Medical Journal*, March 2d, 1895. Another instance of nervous affection due to the absorption of poisonous material produced in the alimentary canal is found in the cases of tetany which occasionally occur as the result of dilatation of the stomach, as described by Küssmaul, Müller, and others; here, of course, motor fibres are selected by the poison.

Again, ordinary urticaria, of which disease angeio-neurotic œdema has been called the giant form, may make its appearance from the presence of the poisons of Bright's disease, scarlet fever, measles, intermittent fever, etc.; then there are the more common cases arising from the ingestion of substances containing toxins, such as shell-fish.

Herpes gestationis, one form of dermatitis herpetiformis, probably arises either from the pressure of the uterus on eliminative passages, giving rise to the retention of effete and poisonous material within the system, or perhaps to resorption of urea from the amniotic fluid. In this complaint the poisonous material affects the sensory as well as the vaso-motor nerves, and the eruption makes its appearance on the skin along the lines followed by these nerves.

In diabetes also a peripheral neuritis, principally involving the vaso-motor nerves, may arise and produce symmetrical cutaneous œdema and erythema.

I might give many more examples of the effect of poisons produced or taken into the alimentary canal, upon the nerves, and through them upon the skin, but I think enough have been given to make it appear reasonable—judged by analogy—that the peculiar cutaneous manifestations of angeio-neurotic œdema likewise arise from poisons produced by the gastric disturbances that are generally found in connection with the disease.

As regards treatment, Doctor Elliott of New York recommends pilocarpine hydrochlorate; others have recommended large doses of arsenic, massage, etc. Doctor Hart-

zell of Philadelphia recommends saline laxatives and salicylate of soda.

The treatment one adopts in any given disease depends, or should depend, of course, on what the physician considers to be its cause; and for my own part, from a careful study of my own cases and those of others, my efforts would be directed, first, to thoroughly cleansing the alimentary canal of its contents. For this purpose sulphate of magnesia would answer, as it depletes the walls as well as clears the canal. This might be followed up by washing out the stomach if necessary, after which a mild sedative to the nervous system would probably soon cut short the attack.

Detroit, Michigan.

THE DOCTOR'S DUTY TO HIMSELF.

BY P. A. WALLING, M.D.

I have been much impressed during the latter part of my life by the tendency of mankind in general, and especially doctors—who are educated in such a manner that they ought to know better—to persist in doing things they know will work to their ultimate injury. Not that I was ever thrown in very close connection with people or conditions that took a tendency in that direction, or that I have had opportunities for observation in excess, or nearly as much as others of my profession or experience. But there seems to be an inborn horror, which, ghost-like, will not down, when I see a man or woman casting away the natural gifts bestowed upon them, or frittering away their most precious talents, and receiving nothing in return—nothing but degradation, devitalization, and a worse than useless prospect for life and old age, which in so many cases is fraught with the sequels of early liberties and individual habits.

I recall a remark made by my preceptor, when studying medicine, to the effect that the more a man denied himself (not meaning, of course, necessities), the better man he became; and also, apropos of a certain great work then in progress, that such works were not the result of starvation or a bread-and-water diet, but that such men as built the Brooklyn bridge must have a sustaining and

nourishing regimen, and that the great majority if not all such master builders were men of temperate habits, having enough of generous, non-stimulating food to supply the body and brain so that no essential part of the economy would be lost for want of support.

Of course, to do a great work requires a great mind. Natural and acquired ability must be used together to be able to see at once what is to be accomplished in the future; and also the mind must be kept clear and the whole economy well nourished and healthy, or the mind must be sufficiently developed to make up for whatever deficiencies may be apparent elsewhere—I mean by this that a man may be able to do a certain amount of work and no more, and with care and perseverance, being free from worry and in proper health, that work will be accomplished.

We will suppose a man to be driven to the wall for the necessities of life; to be able to obtain only what is barely needful for sustenance in the way of diet, to have to work for his daily bread early and late, and have no opportunities for improvement or time for development. It is very likely that work which under other circumstances would be easy would now be impossible. On the other hand, suppose he has time and money (which brings the necessities) and is too slothful to undertake a work that to him is not an absolute necessity—that he spends his time in repining and wishing he was as famous as his neighbor, or could enjoy the applause that comes to his brother, not considering that the same might be his if the same, or in some cases one-half, the effort were put forth; then he will also fail, and such failures seem among the worst, for what seems worse than to see a giant stranded on the ocean for the want of ambition simply to handle the oars?

Again, we will suppose he has the ability, time, support, money, "push," and falls in with a habit that monopolizes his time, uses up his money, undermines his constitution, clouds his master brain, and clogs the wheels of his perseverance. Is it not probable then that his work will fail and that he will be as though he were not in regard to what he might have been?

What is sadder than to see a man of ability, fortune, and opportunities, too slothful to advance himself, too indolent to build from the material already furnished, or too good-hearted to say "No" to a habit that so frequently destroys every chance in this life and leaves his memory, too often, but a stain?

Of course there are other things that operate in the same way: an able man may be denied the opportunities to which he would seem to be entitled, may be refused help at a critical time when a little is worth more than a thousand times as much at some other time, may be hampered by unforeseen accidents, be taken suddenly ill, or his family may be in a condition to render it impossible for him to do as he would like. Any or all of these may come to any man at any time, and he may be unable to control them for his benefit. However, there are things which work to a man's benefit or destruction which he can control, and those are the things which to him are most important.

Who shall pity the man who deliberately rushes into things he knows to be detrimental; who, because his palate is tickled or his stomach is temporarily satisfied, will gorge himself night and day—make a brute of himself—not only destroying his chances of success, but bringing disease and death from those habits which tend only in their most hopeful view to destruction in the end?

It is argued by some that the most able lawyers, most eminent doctors, and the best statesmen, are all drinkers to a greater or less degree—that if they did not stimulate themselves a little they would only attain mediocrity in their professions; that certain first-class preachers take a glass of "something hot" before the sermon is delivered, and thereby enhance its force; that a lawyer makes a better defense for his client by taking a "whiskey straight" before the plea; that a doctor can conduct an operation to a much more favorable end by being slightly stimulated. In many cases it is undoubtedly true that this is done, and successfully, but on what dangerous ground and with what disaster to imitators or the originators themselves, only a long eternity will be able to show.

It is a poor comment on a man's ability that he cannot do this or that without a

stimulant. Why not own it at once that he is not competent to the task, or is not sufficiently prepared, and go about the preparation like a man, and not toy with a drug that will in the end leave him worse at the very least than when he began?

How many times we hear the remark that such a physician is master of his profession, but that he cannot keep from drinking, is an opium-eater, a cocaine fiend—that one or the other of these have used him up! What nonsense! A man is master of nothing unless he is master of himself, and every man can be master of himself if he so desires. If you were to select a horse for your own use for a long and exhausting journey, what treatment would you prefer the animal should have beforehand? Would you prefer the creature that has been made slick, smooth, round and beautiful with drugs and buckwheat, combined with good grooming, with a view to his sale? Or would you prefer that your horse be one that has been built up on oats and hay, with exercise enough to invigorate his muscular system, and rubbing enough to keep him clean? There could be no question if you knew the facts, for if the last-named horse did look a little rougher and did show the marks of the harness, and made no demonstrations that would lead you to think he was a "dandy," he would at the end of ten miles be getting in shape to stand the journey, while the first one would at the same distance be reeking in the filth of his own secretions, and ready to stop, may be to die, if urged farther—even though he felt so well at the start that he kicked out the dash-board and started at a speed far exceeding that of his more sober competitor.

Pardon the following well known allusions: Alexander was a great man with a great mind, great opportunities, and actually doing great things, yet he *died* at the age of thirty-three, of drunkenness, just as he was entering upon the prime of what might have been a powerful and useful life. Antony, too, a young man of most marked ability, wasted his substance in riotous living. Cleopatra was a woman of most wonderful talents, beautiful, attractive, and prosperous, yet her excesses made her life valueless, even to herself. Webster would have been one of the greatest men of America (had he not spoken so dis-

paragingly of the West), yet we always speak regretfully of him and deplore the fact he was much hampered by over-stimulation. Franklin, perhaps, was not as dashing as Antony, nor as brilliant as Alexander, but when he represented the United States in the making of a treaty, and all the others were stimulated and he alone sober, he won every point advanced. Lincoln, that masterpiece of humanity, seemingly raised for a special purpose, certainly did not accomplish his work by stimulation to an impossible task. When clouds hung darkest and everything seemed against him, he turned, not to the wine-cup for information and courage to meet his foes, but to reliance on Divine providence, and viewing the right as he saw it he pushed onward to success. There seem to be no "buts" or "ifs" to his memory.

Teach children, by truth and by example, that good habits emphasize manhood; that stimulants, narcotics and sedatives have no necessary place in the *régime* of the successful professional man; that to be a man it is essential to assert individuality and stand thereon, regardless of what may be said or done. Then we would have men in the truest sense of the word.

But if we train our boys to think they must do a certain thing because some one else does it—that they must, to be successful, wallow in the ditch because this or that one does so—that they must not "go back on the house" when there is a chance to "set 'em up" for a crowd of louts—then we will raise up, not Franklins or Lincolns, but exponents of men who have lived through all ages and are nameless because such are always unknown to posterity.

Park Rapids, Minnesota.

STATISTICS OF ANÆSTHETICS.

Gurlt, in *Centralblatt für Chirurgie*, continues his statistics upon the use of anæsthetics in the German clinics, and reports during five years one death in 2909 cases of anæsthesia from chloroform, and one death in 6004 cases where ether was employed; there is also to be charged to ether a certain number of deaths from pneumonia, which is especially likely to be fatal after laparotomy.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JANUARY 10th, 1896.

Editorial.

THE NEW ILLUMINANT.

Acetylene gas has become the scientific wonder of the day—it can scarce be termed a novelty, inasmuch as both it and the extraordinary illuminating power possessed have long been known; neither is it certain that the process by which it is secured is new, since several claims to priority have already been put forth, and one in particular, on the part of a German scientist, cites this individual's own words as evidence that he, years ago, produced acetylene by precisely the same methods that are now employed. But in any event acetylene as an illuminant is certainly more or less of a novelty to all except, perhaps, those in touch with the deeper and finer details of the advance of chemical science; and the probable speedy application of this agent to domestic purposes constitutes a wonder and a distinct mile-stone of progress in the world's history—all the more conspicuous because of the rapid strides of electricity (whose adaptation to the very same ends is but of yesterday, as it were), and the common prophecy that this subtle agent could by no possibility encounter a rival.

The securing of cheap fuel and light has long been a vital problem, especially in cities and larger towns where "booming processes" have brought high rents, exorbitant taxes, and fancy prices for real estate. The citizen to-day feels a tax of five dollars per ton for coal a burden; in most communities of considerable population wood is entirely out of the question, oil unavailable because of its odor, gasoline dangerous to both property

and life; and where natural gas is existent it lacks many essential qualities, and is moreover wasteful, besides being extravagant in price. Here, fortunately, acetylene promises to step in and solve the problem, not alone for city residents, but even for the denizens of farms, forests, and cross-roads. The cost of producing the gas is slight, and with improved methods will steadily grow less—at least this is the lesson taught by experience. Waste in producing, too, is at a minimum, which means further economy—at the present time nearly ninety per cent. of the power in coal is lost in the process of combustion, while with acetylene almost the entire power developed may be utilized. The laborer, the merchant, the doctor, and the chemist, all will benefit materially by the production of a new cheap, bright, wholesome and almost smokeless means of fuel and light.

Under great heat, such as is readily developed in the electric furnace, coke and lime may be combined chemically to form what is technically known as calcium carbide, and this latter when placed in water—no heat being required—decomposes and the original elements are liberated, forming acetylene gas, and lime—that is to say, the coke, which is a form of carbon, unites with the hydrogen of the water and sets the lime free, when the latter can be employed again if desired.

The result is a gas ten times more brilliant than the best that can be produced from coal; in other words, one small burner consuming one cubic foot of acetylene per hour better supplies a large room than two burners each consuming four cubic feet of ordinary illuminating gas. Further, the acetylene vapor can be employed in the piping already laid for either coal or natural gas. The readiness with which it can be produced offers illimitable opportunities for many in the way of affording independent light or even fuel for factories, residences, cars, streets, or carriages; and it possesses the notable advantage that colors can be as accurately determined under its illumination as under the rays of the midday sun.

A NOTABLE CASE.

In *Revista de la Sociedad Medica Argentina* is published a portrait, and an account from

the pen of Doctor Cecilio S. Lopez, of la niña Augustina Fernandez, five years of age, who has menstruated since she was eighteen months old, the flux on each occasion persisting from three to five days, and very abundantly as to quantity. Two days before each period she complains of extreme pain in the pelvic organs and general *malaise* such as characterizes the same physiological operation in adults. The *mons veneris* and external organs of generation are abundantly developed.

The age of the mother is twenty years; she was married at fourteen. The development generally of the child is very complete; she is, in fact, a miniature woman. She is very sensible of sexual passion, to such a degree indeed as to induce depravity and consequent illness; again, she at times develops melancholia and a *penchant* for destroying whatever she comes in contact with. At other times there is apparently lack of coordination.

The antecedents of the family are without any evidence bearing upon the case. Neither of the parents has ever been syphilitic, inclined to hysteria, or devoted to alcohol.

Doctor Lopez has had this patient under observation for two years, and for a time she was in the Hospital de Clinicas, Buenos Ayres. The result is that the mental condition has very materially improved, and the child now appears to be on the high road to health. The portrait conveys the impression of a child exceedingly bright for her years, the mammæ alone giving evidence of abnormality.

FRACTURE OF THE SPINE.

Complaints are uttered regarding the difficulty in making an absolute diagnosis where there is fracture of the spine—that is to say, difficulty arising in determining the exact vertebra affected. A case of this kind, recently reported in one of our exchanges, in which the true diagnosis was not made out until after death, recalls the suggestions of the late Bransby Cooper. He was in the habit of placing his hands, widely separated out, one over each side of the chest, in a manner that would allow him to feel the ribs above the paralyzed parts moved naturally by the intercostal muscles—those below only work

according as they are acted on by the descent of the abdominal viscera.

Another matter upon which Mr. Cooper was in the habit of laying great stress, was the dangerous practice of making extension in an attempt to replace the broken vertebra, since such is likely to rupture the spinal cord and thus add to the mischief; besides, it does not necessarily occur in fracture that the paralysis depends on pressure from bone, since it may with equal facility arise from effusion of blood or serum. Further, patients very rarely recover where there is complete paralysis, distended abdomen, suffused countenance, and partial priapism.

The first object in treating fractured vertebra is to prevent symptoms; second, to relieve by attention to diet; and third, to relieve by surgical measures. Too often the cause of death is decomposition of retained urine, causing cystitis that induces further trouble owing to vast quantities of unhealthy mucus which in turn decomposes.

A NEW REMEDY—CHLORIDE OF CHROMIUM.

At a recent meeting of the New York Medical Society a paper was presented on "The Treatment of Cancer by the Chloride of Chromium." It was declared that this "new salt of a rare metal" in a few hours converts the tumor into "perfect carbon," which then "crumbles away." Specimens of cancerous tissue thus carbonized, and with the appearance of charcoal and easily pulverized between the fingers, are reported to have been presented for the inspection of those present. Finally the declaration was positively made that the remedy "causes little or no pain and is not poisonous."

We note this as a matter of news, but until more definite information is afforded we fear the "new salt of a rare metal" deserves to be regarded with more or less conservatism. A portion of the material which attaches to the report smacks decidedly of proprietary or patent enterprise. The sesquichloride of chromium has long been listed by Merck, and can hardly be so very rare or new, since the price is but \$1.25 per ounce. Of its therapeutic value we must needs be somewhat skeptical, even though it is remembered that

certain epitheliomas are very susceptible to the action of particular caustics, and that chromic acid will in many instances perform the same miracle as is claimed for chromium. The sesquichloride is undoubtedly the salt referred to under the title of chromium chloride.

STRICTURE OF THE RECTUM.

It occasionally happens that in spite of all care the introduction of the ordinary bougie is so painful as to forbid its use. Here it would seem as if the *colpeurynter* might be of value; and this view is upheld in a measure by the fact that the late Professor Mutter of Philadelphia was wont to employ, to overcome rectal stricture, a small bladder tied firmly to a nozzle furnished with a stop-cock, and a screw-nipple to which was attached a flexible tube. The bladder was first moistened with warm water, then oiled, the tube screwed on, and a blunt probe passed into a fold near the apex whereby it could be carried along the forefinger (previously introduced as a guide) until the orifice of the stricture was reached; a slight effort then sufficed to carry probe and bladder through the stricture, which being accomplished the probe was withdrawn and the bladder inflated with either air or warm water until the patient complained of pain, when the stop-cock was turned and the apparatus allowed to remain as long as it could be borne.

In some instances an instrument especially designed as to shape might be required. Certainly there are many cases wherein dilatation would be far preferable to division or divulsion.

EDITORIAL NOTES.

Anti-diphtheritic Serum.—

One of the difficulties which attend the production of anti-diphtheritic serum is the uncertainty which accompanies the elaboration of toxic products by the Klebs-Loeffler bacilli in culture media. This toxin has to be produced on a large scale, and it must be of a requisite degree of virulence, or it will not, when subsequently inoculated into horses, endow the blood-serum of the latter with the necessary properties. Even the bacilli taken

direct from the throat of a diphtheria patient are not capable of elaborating, in culture media, toxins of sufficient strength for anti-diphtheritic-serum-production, and recourse has to be had to guinea-pigs, in which the bacilli are inoculated and their progeny later transferred to the culture media. The reason for this most inconvenient idiosyncrasy, so characteristic of Klebs-Loeffler bacilli, has until recently not been surmised, but Professor Spronk of Utrecht has unraveled the mystery in a most interesting manner.

Oxygen in Beverages.—

Littell's Living Age is responsible for the statement that beverages are now aerated with oxygen in Germany and sold in bottles and syphons like lemonade or seltzer; that "oxygen gas is, of course, medicine of considerable value in cases of diabetes, anæmia, and some diseases of the respiratory organs"—a jumbling of pathology and applied therapeutics that will puzzle most. Finally is added, "helium, the new gas, long recognized in the sun, has been found in the mineral waters of Wilbad, Black Forest, and also in another Spa near Caunterêts in the Pyrenees."

It will now be in order to announce argon in Saratoga and Virginia sulphur springs.

The Future of Literature.—

It is difficult to predict the future work in the magazine field. Ten years ago no one would have conceived that any magazine would ever contemplate the use of expensive lithographic processes in printing; yet a ten-cent magazine, the *Cosmopolitan*, has put in a large and complete lithographic plant with the avowed purpose of furnishing a certain amount of colored work every month. The first result is seen in the reproduction of a water color drawn by Rossi for this periodical, re-drawn upon stone by its lithographic artists, and printed in both the December and January issues.

Orificial Surgery.—

Doctor Mathews, of the *Medical Quarterly*, in an article on "Some Points in Rectal Surgery," remarks regarding so-called orificial surgery:

In a paper read before the International Medical Congress I endeavored to show that

much elucidation could be thrown upon many suspected diseases by tracing their origin to disease in the rectum—I meant only to convey the idea that many reflex symptoms could be made manifest through the nerve distribution from the affected part to the distant parts of the body. The idea thus inculcated has been run away with in a wild manner by the so-called orificial surgeons, who are in the habit of removing an inch or two of the rectum for the most trivial cause of self-imagined reflex; and I wish to enter a most vigorous protest against this abominable practice, which cannot be too severely condemned, for in its wake lie many wrecked and wretched bodies.

Hydrophobia Inoculation.—

A recent number of the *Archives des Sciences Biologiques*, of St. Petersburg, records a death from hydrophobia one year after anti-rabic inoculations were completed. The patient presented himself a week after being bitten, at the Pasteur Institute, although his wounds had been cauterized three hours after their infliction. The inoculations were completed on July 14th, 1893, and on July 15th, 1894, he died of hydrophobia.

Cineraria Maritima in Cataract.—

This is the latest remedy for the restoration of impaired vision from cataract, first brought to notice by Doctor Mercer, of Port au Spain, who claims the juice of *Cineraria maritima* causes dispersion or rather absorption of the cataract, and that it has been used in a number of cases with most favorable results. Unfortunately the drug is not readily available.

A New Discovery.—

There has been great anxiety among certain medical men to discover a microbe of measles. These gentlemen can now be satisfied, since it is announced in *Nature* that the desideratum has been attained by one Doctor Czajkowski, who is said to reside in the Lithuanian forests. If there has been a doubt before, the name of the discoverer ought to settle it.

Bee Stings.—

Liquid ammonia has long been a popular remedy for the stings of bees. A correspondent of *Nature*, however, insists that a much

more effectual antidote is a mixture known as ammoniated tincture of quinine. On several occasions when stung by bees he found that the quinine mixture would give relief much quicker than ammonia alone.

Tax upon Corsets.—

A correspondent of the *Académie de Médecine de Paris* proposes the creation of a tax upon corsets. It seems surprising that some of our American politicians have not realized what an excellent opportunity is here offered for the collection of revenue. The tobacco and liquor tax would dwindle into insignificance by contrast.

Fitting Facts to Theories.—

For a long time bacteriologists found it impossible to inoculate animals with typhoid. Then Cenarelli came to their rescue, and, after placing the animal to be operated on *in a polluted atmosphere*, injected his germs and secured a typical case. Deductions drawn from such an experiment are hardly satisfactory.

Graves' Disease.—

Doctor John E. Bacon reports successful treatment of exophthalmic goitre by means of nuclein. The treatment was from February 1st to October 1st, and he concludes "the cure is completed and evidently due to the faithful course of treatment with the nuclein."

Atrophy of the Uterus.—

Doctor H. N. Vineburg, in the *Medical Record*, warns against the free use of the curette after labor or miscarriage, on the ground that it may cause uterine atrophy, and cites two cases which seems to show his position is well taken.

The Medical News.—

This journal has removed from Philadelphia to New York. We regret to learn also that Doctor Geo. M. Gould, who has so long and ably filled the editorial chair, has severed his connection with the *News*.

Normal Urine and Sugar.—

Sir George Johnson, of London, makes the positive statement that there is not the slightest trace of sugar in normal urine.

Items and News.

Curiosities of Hibernation in Bats.—

A number of interesting observations of the habits of the common bat and the long-eared bats in captivity are recorded by Mr. John D. Batten in *Nature Notes* for December, 1895. Common bats appear to be practically blind, yet Mr. Batten mentions that he never knew a bat to fly against a window or against any obstacle—light or darkness apparently making no difference in its flight. Long-eared bats appear to see better than common bats, and their hearing is much more acute. There is seldom any difficulty in inducing bats to feed. Mr. Batten fed his bats at first on flies, moths, and grasshoppers, but when these became scarce he fed them almost entirely upon meal-worms. It is remarkable that bats, on being captured, readily adopt an entirely new method of life, and the new habits thus acquired quickly become natural. When bats are asleep in October and November, they take sometimes as long as a quarter of an hour to awaken. Mr. Batten has observed the process carefully, and finds it to be always the same. He thus describes it:

"The bat when thoroughly asleep is cold, dead cold, to the touch. If I then took it in my hand, it would not attempt to move about or seek for food, but lie quite still. On putting it to my ear I could hear a throbbing begin, at first very slowly and not very regularly, more than a second between the beats. Gradually the throbbing became quicker and quicker until it was impossible to count the beats; at the same time the warmth of the body was increasing very rapidly, and the bat quivering visibly. At last the throbbing becomes a continuous whirr, not unlike the purring of a cat, and the body feels quite hot to the hand. Then, rather suddenly, the throbbing quiets down like water coming to the boil; it slows somewhat and becomes almost inaudible. The bat coughs or sneezes, chatters a little with its teeth, and begins to move about, expecting to be fed."

Of three bats set to hibernate at the end of November in 1890, two were found dead at the end of the following January, and one was alive and perfectly strong, its fur in good condition, and it fed well; and the hibernation had not affected its power of flight.—*Nature*.

A Judge Scores "Vitapathy."—

The following strong denunciation by Judge Dustin, of Cincinnati, of a so-called "vitapathy," who was arrested and fined for prac-

ticing without a license, was doubtless accentuated by the fact that a man was known to have recently died without medical attention other than that of the prisoner:

"Men who knowingly go into a sick-room and prevent anything being done for a dying man, by silly incantations and laying on of hands, are responsible for his death and ought to be on a par with a murderer in the eyes of the law. God help the dying man who relies upon you or any of the so-called graduates of quackery! You speak of vitapathy being of a higher power than medicine, and you say that you ordain ministers at the same time you matriculate 'vitapathic' physicians. Your methods are an insult to intelligence; your practice a criminal abuse of ignorance; your college a disgrace to civilization."—*Medical Record*.

A Slap at the Bacteriologists.—

These are useful assistants, but they are tyrannical masters, and the results of a given treatment must after all be judged, not in the laboratory, but in the hospital ward and the sick-room. A check must be imposed on garrulous bacteriologists who show a disposition to ride the cock-horse among us. We are grateful to them for such assistance as it may be in their power to render to medical science, but we cannot allow them to dictate to us what conclusions we are to draw from clinical investigation. Bacteriological statements are matters of inference, but clinical observations are facts—facts, too, which concern us more nearly than the interesting, but too often contradictory, deductions which foreign laboratory men foist upon us at the point of the scalpel.—*Medical Record*.

A Centre Shot.—

When a bacteriological diagnosis, in the absence of any clinical evidence of the disease, can agonize the hearts of parents and friends in a private dwelling, then that bacteriological diagnosis becomes a cruel guide and a sin against humanity. When the bacteriological diagnosis, in the absence of any clinical evidence of the disease, can force the helpless and defenseless poor into a hospital for contagious diseases, to be subjected to a treatment about which we know nothing, then it becomes a crime.—*American Medico-Chirurgical Bulletin*.

Very Upper Crusty.—

In November the St. Louis Academy of Medical and Surgical Sciences was organized. The constitution of the society subscribes to

the code of ethics of the American Medical Association, and the membership is limited to fifty. No one can become a member unless possessed of a good literary and medical education. As evidence of literary qualifications and ability as a scientific worker, the candidate must deposit with his application a thesis, a pathological specimen with descriptive text, a drawing of a normal or abnormal specimen with text, or some other evidence of his worth. The evidence is passed upon by the committee on credentials. If the evidence is accepted, the ballot is taken. Two negative votes will defeat a candidate.—*Ohio Medical Journal*.

The Peanut in Phthisis.—

It would be a somewhat curious commentary on scientific studies of food if we should at last fall back on the ground-nut, or peanut, as it is commonly called, as one of the best articles of food in consumption. And yet Doctor Brewer, in the *Journal of Hygiene*, tells what remarkable results he gets by having his patients inhale the fumes of vinegar, and eating as many peanuts as their digestion will stand. The peanut has long been known as an excellent fat-producer, and has been used with good results in weak digestion, and in the hands of Doctor Brewer has been found more easily digested, much more nutritious and agreeable to the taste, than cod-liver oil and its kindred carbon compounds.—*Medical Times*.

Origin of Fads.—

Anything pointing to a cure for tuberculosis, or cancer, or any of the serious infectious diseases, stirs the community to a high pitch of excitement. The results are exploited in the press, not with scientific conservatism, but with great headlines and sensational enthusiasm. The claim is made that they are cure-alls, and that the disease is mastered, when, as a matter of fact, it is not at all likely that any one remedy will be discovered that will prove an absolute antidote for any given disease.—*Post-Graduate*.

Sound Doctrine.—

Surgery is vastly overdone of late; the modern shifting notions on pathology are largely responsible for the present state of things; the ever-haunting phantom of infection from simple lesions has led to the conclusion that local and radical measures are called for in the treatment of conditions which in the usual order are remediable through simple means with the aid of systematic therapy.—*Times and Register*.

What Next?—

A prominent Parisian professor has concluded that "we ourselves, owing to some internal modifications, develop disease and then infect such germs as may be lurking in the neighborhood—germs that are living on the crumbs from our table, so to speak." The cycle appears to be almost complete.

A Suggestion.—

If by tapping a horse filled with diphtheria bacilli, can be obtained a cure for the disease, why shouldn't we tap an Old Kentucky colic and get a toxin that would knock the gold cure out of sight? The matter is respectfully referred to the North Dakota Legislature.—*Pacific Record.*

The Plague in China.—

The plague, during its recent outbreak in China, was the immediate cause of 2,550 deaths, and of the emigration of 100,000 Chinese. The percentage of Europeans who recovered was eighty-two, while that of Orientals was as low as twelve.—*China Missionary Medical Journal.*

Artificial Human Milk.—

A Berlin physician ferments cow's milk with rennet, sterilizes the whey, and adds cream to suit the individual. This, he says, closely resembles human milk, and can be assimilated by the most delicate stomach.—*Exchange.*

Truth, Truth, Truth!

Measured by the actual benefit done to mankind, the progress in the comfort of life, security, and happiness, the names of many comparatively obscure physicians should stand foremost.—*Medical Record.*

A Danger of Illuminating Gas.—

It is declared not at all unlikely that cases of glycosuria may follow the inhalation of slight amounts of illuminating gas, when this leaks into a house in volume not sufficient to attract notice.

Homœopathy Extraordinary.—

A Paris physician is said to have prescribed a nightly dose of infusion of fig leaves for a patient whose dreams were peopled by visions of naked women.

Fame.—

The shortest road to fame nowadays is to invent a new remedy, application, or bacillus.—*Journal of Arkansas State Medical Society.*

Book Reviews.

THE ROYAL NATURAL HISTORY. By Richard Lydekker, B.A., F.R.S., F.Z.S. Paper; octavo. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

The issues for October 1st and October 15th, 1895, complete Volume II of this Library of Natural History. The account of the deer family is completed; then are taken up those Ungulates which, although ruminants in the general sense of that term, yet differ widely from the common forms and from one another. First are the small deer-like animals known as Chevrotains, and second the camels, which include likewise the South American llamas. The water chevrotain and Malayan chevrotain, both very peculiar and interesting creatures, are described. The account of llamas is more than usually full for works of natural history. Then follow the Suidæ or hog family, beginning with the wild boar, the natural history of the race being traced down to the modern pig; also are described the African bush-pig or boschbasks, the babirusa, the wart hog, the pecary, hippopotamus, tapir, and rhinoceros; considerable space is also devoted to extinct families of pigs.

Next comes the horse tribe (family Equinæ), all the different breeds being considered—the tarpan or wild horse of Central Asia, the wild horses of America, the zebras, quaggas, and tame and wild asses. The ancestry of the horse in early geologic ages is also considered.

Chapter xxvii describes no less than four forms of hyrax, the different elephants, both African and Indian varieties, as well as extinct forms, including the mammoth, mastodon, dinotherium, litopterna, homalodonthere, astrapotherium, and the toxodonts.

Chapter xxviii is devoted to the manati and dugongs.

LITTELL'S LIVING AGE. Price, 15 cents; \$6.00 per year. Littell & Co., Boston.

The 208th volume of this standard periodical began with January. Among the valuable articles appearing in the first issues of the new year are: "The Letters of Matthew Arnold," by Alfred Austin; "Muscat," by J. Theodore Bent; "Corea and the Siberian Railway," "Lord Salisbury," by Augustin Filon; "Kashmir," by Sir Lepel Griffin; "The Migration of Birds," by G. W. Bulman; "Air Car," by Lieutenant B. Baden Powell; "Purcell," by Frederick Crowest; "Everybody's Chance," by John Habberton; "A. D. 1920;"

"The Peasant Life of South Russia;" "Life of Punch," etc.

For the amount and quality of reading furnished, the price of this journal is exceedingly low. To those desiring the cream of both home and foreign literature the publishers make a notable offer, viz., to send the *Living Age* and any of the American \$4.00 monthlies or weeklies one year for \$9.00; or the *Age* and any \$3.00 publication for \$8.00. The beginning of the new volume is an excellent time to subscribe. Heretofore the price of the *Living Age* has been \$8.00 per year.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 a year. Cosmopolitan Publishing Co., Irvington-on-Hudson, New York.

With 1896 the *Cosmopolitan* startles its patrons with another new departure, viz., illustrating in part with lithographic plates. Moreover, it has a new cover which far surpasses anything of the kind heretofore attempted among the magazines. This issue contains: "The City of Dreams," by Arthur S. Hardy; "Coasting Down Some Great Mountains," by Harry L. Wells; "Amateur Photography," by W. S. Harwood; "A Jocund Feud," by Maurice Thompson; "Butterflies," by James Lane Allen; "Submarine Boats," by W. A. Dobson; "The Weird Sisters," by Esther Singleton; "Was George Eliot a Hypocrite?" by Julien Gordon; "Ancient Lineage," by Edward Harlow; "A Brief History of Altruria," by Sir Robert Harton. The verse is by William Hill and C. E. Montgomery. There are the usual departments of The World of Art and Letters, The Progress of Science, Some Examples of Recent Art, etc.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

The Christmas number contains: "Letters to Young Friends," by Robert Louis Stevenson; "How a Street-Car Came in a Stocking," by Harriet Allen; "Betty Leicester's English Christmas" (part I), by Sarrah Orne Jewett; "A Christmas White Elephant" (I), by W. A. Wilson; "The Swordmaker's Son" (III-IV), by William O. Stoddard; "The Dream March of the Children," by James Whitcomb Riley; "The Happy Holiday of Master Merrivain," by Virginia W. Cloud; "Teddy and Carrots," Chapter XII, by James Otis; "Our Secret Society," by George Parsons Lothrop; "The Little Carltons Have Their Say," by Constance Cary Harrison; "The Prize Cup," chapters VII-X, by J. T. Trowbridge; "Owney, the Post-office Dog,"

by Helen E. Greig; "Bombshell, an Artillery Dog," by Lieutenant J. C. W. Brooks. The verse is by W. C. McClelland, Bertha E. Bush, Rudolph F. Bunner, Harriet B. Sterling, and Eva P. Brown.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Company, New York.

In the January issue Right Honorable William E. Gladstone writes of "The Future Life and the Condition of Man Therein;" Ex-Speaker Crisp on "How Congress Votes Money;" Reverend Judson Smith on "Foreign Missions in the Light of Fact;" the Mexican Minister on "The Philosophy of Mexican Revolutions;" Karl Blind on "The Crisis in the East;" Audley Gosling on "Central America and its Resources;" Edward Thompson on "Canada as a Hostage;" Cyrus Edson inquires "What is Malaria?" Felix Oswald describes "An Expensive Delusion;" under the caption of "War and its Modern Instruments" W. S. Aldrich, Admiral P. H. Colomb, R. N., Admiral S. P. Luce, U. S. N., and Lieutenant J. K. Cree, U. S. A., discuss modern war ships, the balloon, etc.; Marion Harland, Mrs. Burton Harrison and Elizabeth Bisland discuss "A Study in Husbands."

SUN AND SHADE. Price, 50 cents; \$5.00 per year. New York Photogravure Co., New York.

The January issue is a decided novelty in magazine-making. Besides two charming colored plates made by an entirely new process, there are six photogravures, the subjects of the latter being groups of famous children arranged in decorative framing of flowers; in the lower section of each plate a calendar for the new year is impaneled.

This calendar number of *Sun and Shade*, in addition to its novelty, gives a *résumé* of art affairs at home and abroad for December, and contains articles of absorbing interest to art-lovers. The idea of a special calendar number is original with the publishers. The colored plates are reproductions from famous paintings in which each tint and tone of the original is given with fidelity and marvellous realism. *Sun and Shade* is the only art magazine that has solved the vexed problem of presenting subjects in the realm of the fine arts in a popular fashion.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. J. B. Lippincott Co., Philadelphia.

The complete novel in the January issue is by Mrs. Alexander, the author of "The Wooing O't" and other well known books.

"The Woman of Asbestos" is a Neapolitan story by Mrs. Pullen; "The Way of a Will" is by William T. Nichols; Charles D. Rhodes tells the tale of "The Man Who Came to Town;" "Architecture in America" is by John Stewardson; Doctor Charles C. Abbott preaches a sermon on "Landmarks;" "The Moonshiner of Fact" is by Francis Lynde; David B. Fitzgerald describes a night "With the Ducking Police;" Lyman H. Weeks writes of "Some Women in Doublet and Hose;" Richard H. Stoddard gives reminiscences of "Longfellow;" and Oliver McKee exposes "An Editorial Copy-Foundry." The verse of the number is by Grace F. Penny-packer and Charles G. D. Roberts.

"Responsibility among the Chinese," by C. M. Cady; "Tom Grogan," II, by F. H. Smith; "Patience," by J. G. Vibert; "Life of Napoleon Bonaparte," by William M. Sloane; "Sir George Tressady," III, by Mrs. Humphry Ward; "A Feast Day on the Rhône," by T. A. Janvier; "The Interpreter," by F. D. Sherman; "The Trumpeter of the Troop," by T. H. Wilson; "Borchgrevink and Antarctic Exploration," by A. W. Greely; "The First Landing on the Antarctic Continent," by C. E. Borchgrevink; "Tribal Life among the Omahas," by A. C. Fletcher; "A Slender Romance," by Ruth McEnery Stuart; "News," by J. H. Morse. There are the usual departments.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 a year. Houghton, Mifflin & Co., Boston.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The first issue of this magazine for 1896 opens with an unpublished Note Book of Nathaniel Hawthorne. There are also the opening chapters of a new three-part story by F. J. Stimson, entitled "Pirate Gold." Other features of the issue are: "Emancipation of the Post-office," by J. R. Proctor, "Congress Out of Date," "Country of the Pointed Firs," by Sarah Orne Jewett; "The Johnson Club," by G. B. Hill; "A Farm in Maine," by Mary H. Catherwood; "Children of the Road," by Josiah Flynt; "The Schoolhouse as a Centre," by Horace E. Scudder; "The Christian Socialist Movement," by J. M. Ludlow; "Seats of the Mighty" (continued), by Gilbert Parker. There are poems, book reviews, and the usual departments.

The initial issue for 1896, under the caption of "Progress of the World," discusses the Venezuelan Question, President Cleveland's Message, The Financial Situation, The Bayard Episode, The Cuban Struggle, Municipal and Civil Service Reform, Foreign Politics, etc. There is also "Classified Review of American and Foreign News" for December, 1895; a paper on the "World's Wars and Riots of 1895;" "Current History in Politics;" "South Carolina's New Constitution;" "Abdul Hamid, Sultan of Turkey;" "At Jerusalem Five Years Hence"—a political prophecy; "Israel Among the Nations;" "The Jews of New York;" "Leading Articles of the Month;" "Reviews," etc.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 a year. Charles Scribner's Sons, New York.

AMERICAN NATURALIST. Price, 35 cents; \$4.00 a year. The Edwards & Docker Co., Philadelphia.

Contents for January are: "Sentimental Tommy—the Story of His Boyhood," chapters I to IV, by J. M. Barrie; "Frederick Locker," by Augustine Birrell; "A New Sport," illustrations by W. R. Leigh; "A History of the Last Quarter-Century in the United States," IX, by E. B. Andrews; "The New Building of the Boston Public Library," by T. R. Sullivan; "Madame Annalena," by Bliss Perry; "Water-ways from the Ocean to the Lakes," by Thomas C. Clarke; "Love's Cryptogram," by Andrew Lang; "September 13, 1894—On the N. P. R.," by John Heard; "The Point of View;" "The Field of Art;" "About the World."

The current issue contains: "On Heredity and Rejuvenation," by Charles S. Minot; "Lost Characteristics," by Alpheus Hyatt; "Variation after Birth," by L. H. Bailey; "A Comparative Study of the Point of Acute Vision in Vertebrates," by J. R. Slonaker; the editor discusses "Anti-vivisectionists," "Vivisection of Idiots," and "The American Association of San Francisco." There are likewise the usual notes on Petrography, Geology, Paleontology, Botany, Vegetable Physiology, Zoölogy, Entomology, Embryology, and Anthropology.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The January issue contains: "A Kaleidoscope of Rome," by F. Marion Crawford;

The initial number for 1896 presents "The New Study of Children," by Professor James Sully; "Interviewing and Practice," by Frank Banfield; "American Traits," by Martin Morris; "Cranford Souvenir," by Beatrix L.

Tollemache; "Lion-hunting upon the Haud," by H. C. Lawther; "Vegetarianism," by T. P. Smith; "Religious Instruction in the Public Schools," by J. H. Crooker; "My Maid of Honor," by H. Fielding; "A Charlatan," by May Kendall; "Character Sketches from Real Life," by Evelyn E. Green. Other notable papers are "Kaikai," "From the Note Book of a Country Doctor," "Havana," and "Missionaries in China."

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. Geological Publishing Co., Minneapolis.

The January issue, which opens the seventeenth volume, contains a portrait of James Dwight Dana, with biography by Charles E. Beecher; "Physical Condition of the Flow of Glaciers" is by Warren Upham; "Floating Sand"—an unusual mode of river transportation,—by Fred. W. Simonds; "Ancient River Deposits of the Spring River Valley, Kansas," by O. H. Hershey; "The Time-piece of Geology," by S. W. Claypole; Editorials, Review of Recent Geologic Literature and Publications, Personal and Scientific Notes, etc., complete the number.

McCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. S. S. McClure, Limited, New York.

The contents for January, 1896: "Abraham Lincoln—as Storekeeper, and Soldier in the Black Hawk War," by Ida M. Tarbell; "Poems of Childhood by Eugene Field;" "A Century of Painting," by Will H. Low; "Defeat of Blaine for the Presidency," by Murat Halstead; "The New Statue of William Henry Harrison," by Frank B. Gessner; "The Silent Witness," by Herbert D. Ward; "The Sun's Light," by Sir Robert Ball; "Life in Andover Before the War," by Elizabeth Stuart Phelps; "The Wager of the Marquis de Méroilles," by Anthony Hope.

OUTING. Price, 25 cents; \$3.00 per year. Outing Publishing Company, New York.

The January issue wears a rich garb. The stately elk, amid his golden bravery, seems to know that there are good things behind him. The quality of text and illustration make this holiday number the best that has left *Outing's* presses. Notable features are: "Sweet Marjory," by Sara Beaumont Kennedy; "Winter Fishing," by Ed. W. Sandys; "The Horse of Society," by E. B. Abercrombie; "An Arctic Castaway," by R. G. Taber; and "A Moose Hunt on the Yukon," by the late V. Wilson.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Co., Boston.

The January issue contains: "Great Markets of the World — Fulton Market," by Dinah Sturgis; "Household Inventions," by Hanna Otis Brun; "The Kitchen," by Mary B. James; "Doughnuts" (verse), by John S. Barrows; "Housekeeping in Berlin," by Ethel Paton; "At the Gap" (verse), by Ida A. Weeks; "Poverty Suppers," by Mary J. Lincoln; "Various Forms of Milk Fermentation," by E. W. Allen. There are the usual departments, Notes, Queries, etc.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

The January number is a Woman's Number. "The New Woman in Office," by Joseph D. Miller, relates how Mrs. Blackman, Secretary of the Police Board of Leavenworth, handled a Coxey army, and the experience of Mrs. Ames as deputy sheriff in Illinois; Mrs. Martha McCulloch Williams contributes a charming piece of fiction entitled "Pyramus and Thisbe;" Frances Mathews writes of "A Record of Realities;" the ingenious accomplishments of women are told in "Women Inventors." There are the usual Fashion Department, Editorials, etc.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

David A. Wells continues his account of "Tax Experiences of the Federal Government," in the January number; Doctor Henry Carrington Bolton gives an account of the "Smithsonian Institution" which is finely illustrated; David Starr Jordan contributes an article under the sarcastic title, "Scientific Temperance;" Samuel J. Barrows writes of what was done by "The Fifth International Prison Congress," held in the summer of 1895 in Paris.

JOURNAL OF COMPARATIVE NEUROLOGY. Price, \$1.00; \$3.50 per year. C. L. & C. J. Herrick, Granville, Ohio.

The December number includes 136 pages of Volume V. B. F. Kingsbury, Ph.D., writes on "The Brain of *Necturus Maculatus*;" Doctor Ludwig Edinger, on "The Cortical Optical Centres in Birds." There is an editorial on the latter subject, and another devoted to "Neurology and Monism"—both very valuable contributions.

Therapeutic Brevities.

"*Lost Manhood*,"—Saw Palmetto is the true "vigor of life" in pre-senility. There is no country so prolific of sexual disorders and loss of virile power as Utah. A man cannot satisfy a dozen vigorous women and retain his full powers, and yet this until recently was what many were called upon to do. For this state of affairs, Saw Palmetto is *the* remedy, and I have had opportunity to put it to crucial test in very many stubborn cases—in pre-senility, prostatic troubles, ovarian pains, wasting testicles, wasting mammary glands, etc.—with universal success.

Early in May, 1895, there came to me a man of robust frame, aged fifty one, who complained of difficulty in voiding urine and great tenderness in prostatic portion of urethra. About a year ago his urine began to pass with less force, and finally with no force at all; he also noticed a weakening of virile power, and seldom had erections. His wife, a buxom blonde, several years his junior, had also noticed his inability to perform family duty as of yore; she would tantalize him and threaten to get a substitute,—all of which nearly drove him to desperation. He became morose; everything went wrong; complained of feeling tired; could not endure any kind of exercise; mind was beclouded; sleep forsook him; penis was shrunken and cold—in fact, he was a badly played-out man. Fifteen drops fluid extract Saw Palmetto, taken four times daily, caused a more free flow of urine at the end of a week; he slept well, and felt better generally; also now complained of "drawing pains" in the spermatic cords. At the end of a fortnight his testicles, which were so much shrunken, proved to be gradually increasing in size; the urine flowed with more force, and the tenderness of the urethra had disappeared. He slept and rested perfectly, except when occasionally awakened by erections. At the end of a month he announced himself "once more a man;" said his wife no longer complained of a duty neglected, but declared his touch thrilled her with the same satisfaction and delight as in their early wedded life. His testicles were now larger than normal, but firm; and warmth and vigor had returned to such an extent he regrets the law that now prohibits a plurality of wives in Utah.—DOCTOR A. L. DAVIDSON, in *Medical Gleaner*.

Quinine Muriate a Prophylactic against Influenza.—Doctor C. Graeser (*Internationale Klinische Rundschau*) insists that the timely and continuous administration of quinine

muriate during influenza epidemics may prevent infection, and cites his experiences with a regiment of hussars stationed at Bonn during the epidemic wave of 1889-90. He has previously published these facts, but now refers to them in consequence of an article which appeared recently in the *Revue de Médecine* stating that experiments on rabbits showed quinine to be inactive against the infection of influenza. His facts are simply these: that for a period of twenty-two days he administered to each man of one of the squadrons of the regiment, eight grains of quinine hydrochlorate, and that the result was comparative immunity for this particular squadron as compared with the others, and even as compared with men who occupied the same quarters. Thus, during this period there were attacked in the first squadron twenty-two men, in the second seven, in the third nineteen, in the fourth forty-two, and in the fifth thirty-two. Now it was the second squadron that underwent the quinine treatment, and, of the seven men attacked, three fell ill on the first day of the trial, two on the third day, and one each on the fourth and fifth days respectively. After that, no cases arose in this squadron, although fresh attacks continued to occur in other detachments. Doctor Graeser is persuaded that this *experimentum crucis* justifies the conclusion that quinine has a specific action in influenza, and that when administered at the appropriate time and in sufficient dose it may prevent an attack in a person exposed to infection. Such an experience, he holds, is of more weight than any experimental results in animals.—*The Lancet* (London).

Uses of Honey.—Honey is at once a valuable medicine and food. Foul air, improper ventilation, sudden changes of weather, the exposure of lungs and throat to a damp atmosphere, are the source of no end of throat and bronchial troubles. A free, regular and constant use of honey is probably the best medicine for throat troubles. It is a most wholesome and economical substitute for butter, being as a rule half the price of that article. Honey is of more service in cooking than many people imagine. Those who indulge in a glass of grog and hot water on cold winter nights should try the effects of a spoonful of honey instead of sugar; the change will surprise them. Honey may, indeed, replace sugar as an ingredient in the cooking of almost any article of food. In rice-puddings it is preferable to sugar, and the flavor is much more delicious. For preserving most kinds of fruit, honey is far

preferable, as it has the quality of preserving for a long time in a fresh state anything that may be laid in or mixed with it. For many medicinal purposes honey is invaluable. To town residents who may be jaded and look careworn after the excitement of late hours, when the skin becomes dry, red, and harsh-looking, try the effects of rubbing gently a thin coating of honey on the face before retiring. It is one of the finest cosmetics in the world.—*Horticultural Times*.

The Use of Aconite.—Jules Cornby regards aconite of value in those diseases of childhood which are characterized by a *spasmodic* element, as asthma, pertussis, laryngismus stridulus, palpitations, convulsions, etc. In spasmodic affections of the respiratory passages, a combination of aconite and belladonna is very useful; also in diseases of the heart, to mitigate the effects of digitalis. It may also be combined with opium for neuralgia, and with quinine for malaria. If the respiration is embarrassed, or the child depressed, prostrated, somnolent, and the heart weakened, aconite, owing to its depressant action, is contra-indicated—*e. g.*, in capillary bronchitis, pericarditis, valvular affections, diphtheria, typhoid, etc. In pneumonia, scarlet-fever, and variola, aconite often produces excellent results.

Regarding the form of the drug, preparations made from the *root* of the wild plant are the best—generally. French physicians give preference to the tincture. The use of *aconitine* in children is to be condemned as being extremely active and very difficult to control. Small doses of aconite frequently repeated are preferable to large doses at long intervals.—*Indian Medical Record*.

Common Salt for Ringworm.—Children suffering from tinea tonsurans are sent to the seaside, and almost invariably improve in the salt air. This improvement has hitherto been ascribed to the general favoring influence of the open-air life and improved hygienic conditions under which children live at the seaside; but when we remember the fact that the air near the sea is impregnated with minute particles of sea water containing in solution, as it does, a large proportion of sodium chloride, may we not reasonably ascribe the disappearance of the skin disease to this circumstance? This fact arrested my attention and led me to think that common salt might prove a valuable remedy in ringworm. Accordingly I prepared a solution and used it in the next three cases which

I was called upon to treat, applying it to the diseased scalp every night for five nights and washing it off the following morning with ten-per-cent. boric-acid soap. In less than four weeks a cure was effected in each case.—DOCTOR F. J. REILLY, in *British Medical Journal*.

Phosphorus in Retinitis Pigmentosa.—An ophthalmoscopic examination in January, 1891, of the eyes of a woman sixty-five years of age revealed the existence of retinitis pigmentosa, well advanced, and according to her testimony the field of vision was narrowing constantly at a rapid rate. She had also a history of eye trouble dating back fifty years. Phosphorus was prescribed, and the improvement that followed was marked; not only did the central vision improve, but the field also became much wider. An examination made in 1895 proved the positiveness and permanence of the relief.

In several other cases where I feel that actual and permanent improvement followed treatment, phosphorus was the remedy used.

I have now under treatment a patient who, six months ago, had central vision in the left eye reduced to $\frac{1}{200}$; concentric contraction of the field to less than five degrees; vision lost in right eye. After phosphorus had been taken for two months, vision was increased to $\frac{1}{10}$, and field to about ten degrees. The improvement in this case probably is transient, but it is too early yet to judge.—DOCTOR R. S. COPELAND, in *Medical Century*.

Eclampsia and Albuminuria.—Eclampsia, taken by itself, is rare. During gestation there are occasionally marked signs of a coming storm, which will be found described in books, and which by proper treatment can be frequently averted. The headache, giddiness, failure of sight, œdema of limbs, sound a warning note. Nurses, from the time they are engaged, ought to be taught to test the urine of the pregnant woman, and get samples from the housemaid. As to the causes, they cannot be always told, but we know an agent accumulates in the blood which excites eclamptic convulsions and death by asphyxia. As to treatment, one of the old rules holds good: If plethoric, bleed; if anæmic, do not. Chloroform, hydrate of chloral, enemata, purgation, and the hot-air bath may be indicated. For the induction of premature labor no absolute rules can be enforced, but in this state of things a level-headed consultation is absolutely necessary.—DOCTOR WALTER BERNARD, in *Medical Press and Circular*.

Silver Nitrate.—With regard to the effect of nitrate of silver in minor ailments, there is no more striking illustration of it than in those cases of weak, irritable stomachs which are characterized by intense depression of spirits, apprehensions, and failure of pluck or courage. In these cases a remarkable change takes place both in the functions of the stomach and in the tone of the nerve centres of emotion. To get the best results in these stomach cases, the nitrate should be dissolved in distilled water and taken on an empty stomach. A distinct local effect on the mucous membrane, as well as the more remote effect on the nerve centres, is produced by giving it in this form.—DOCTOR MURRAY, in *Lancet* (London).

[We have found the best results accrue to pills made with minute quantities of ipecac.—Ed.]

Hydrastis in Nasal and Pharyngeal Maladies.—Hydrastis is a valuable local agent in affections of the nose and throat, as it acts as a sub-astringent tonic to the parts to which it is applied. Simple catarrhal, follicular or granular pharyngitis is often relieved by it, and so are syphilitic ulcerations of the naso-pharyngeal passages. It has a beneficial effect in the various forms of sore throat, rhinitis, and the ulcerated or aphthous varieties of tonsillar, pharyngeal, and retro-pharyngeal catarrh; in sub-acute and chronic naso-pharyngeal catarrh, where the mucous membranes are dry and parched, the secretions being altered in quantity and character; and in catarrhal hypertrophies with profuse discharge and thickening of the Schneiderian membrane. It should be somewhat diluted, and is never the remedy for active inflammatory lesions.—*Medical Gleaner*.

Conium in Uterine Fibroid.—Patient, aged forty-five, had enlarged abdomen from fibroid tumor of six years' duration, pronounced not suited for removal; for six months also suffered from sharp pains in breasts, worse at night—areas of sensitiveness to pressure in breasts, especially in outer portion, giving a feeling of firmness or induration to touch. Under conium, size of abdomen decreased, with lessening of pressure symptoms; pains relieved in three weeks, but recurred and were again relieved; thickening of tissue of breasts disappeared in ten weeks. Under occasional use of conium the patient has continued very comfortable for the past three years.—DOCTOR DEARBORNE, in *Medical News*.

Constipation.—A large proportion of cases arise from *habit*, and the only practical method of relief is to follow the rules of Doctor Matthew, as follows:

Eight to twelve ounces of hot or cold water on rising in the morning; some fruit—apple, banana, orange, or figs—on retiring at night; dress according to the weather, but warmly; avoid sweetmeats, candy, pastry, pies; avoid sedentary life or long sitting in one position; go to stool at a regular hour—best just after breakfast—at which time knead the bowels, especially over the colon, with the palms of the hands, rubbing firmly and forcibly from above downwards; practice frequent bathing, especially in tepid or cold water, followed by brisk rubbing of the body; walk a number of miles each day.—DOCTOR WETHERBY, in *Kansas City Medical Record*.

Dangerous Effects of Cocaine.—In the *Medical World* Doctor W. L. Little gives some experiences in the employment of cocaine, that have taught him to be very careful in its use. In one case an injection of ten or twelve minims of a four-per-cent. solution produced headache, vertigo, and deep and hurried breathing; in another, a few drops of the solution injected in the gum produced faintness, pallor, and difficulty of breathing, the pulse becoming threadlike; and in a third, a like small injection produced similar symptoms, followed by convulsions—the case was of the gravest nature, and the patient, although actively treated, did not rally for several hours. He concludes: "Cocaine is more or less dangerous to delicate patients with light-colored hair."—*Medical Times*.

Verbascum Thapsus for Hæmorrhoids.—Mullein oil (not that obtained by pouring olive oil over the buds of the plant and allowing it to macerate for eight days, but the genuine sun-distilled concentrated extract) is an anodyne in painful hæmorrhoids. Bleeding piles are also favorably influenced by the external application of the oil, two or three times daily. The tincture of verbascum may also be given internally in doses of eight drops three times a day.—*Homœopathic News*.

Jaborandi in Membranous Croup.—I have given this remedy to the extent of a teaspoonful once an hour to a girl of ten years of age, until copious diaphoresis was produced, with the most happy results. In several instances within the last few years I have given what might be called heroic doses of this drug to-

gether with the fluid extract of gelsemium in cases of membranous croup, with complete and rapid recovery. Small doses are nearly useless. Give it with a free hand, and the result will be gratifying. Use spirits with it, or in alternate doses, if there is any fear of exhaustion. I have not had anything but the most favorable results from large doses. I have found jaborandi to be a remedy equaled by few and surpassed by none in diphtheria.—DOCTOR FLOYD CLENDENEN, in *Medical Summary*.

Horse Nettle for Epilepsy.—*Solanum carolinense* is not a substitute for the treatment generally accepted for epilepsy, but it is often a desirable succedaneum for the bromides and superior to biborate of soda. It unquestionably has a sufficient influence over the disease to warrant us in substituting it for a time to relieve the patient of the depression induced by the bromide treatment. Finally, its toxic effects are *nil*.—DOCTOR BONDURANT, in *Medical News*.

Detection of Corneal Ulcers.—When in doubt concerning an abrasion of the cornea, or the extent or presence of ulceration, the question may be solved by using an aqueous solution containing two per cent. fluoresin and three per cent. soda bicarbonate; the former stains the abrasion or ulceration a greenish-yellow, when the extent of injury is easily determined.—*Annales d'Oculistique*.

What is Pap?—Rub up to a smooth paste two or three tablespoonfuls of first-class flour in water, to the consistency of cream. Pour this into a mixture of equal parts of boiling milk and water, stir and cook slowly for half an hour. This pap has high proteid and carbon values, serving an excellent part as food, and is used also as a diluent of bouillon and essence.—*Hospital Record*.

Treatment of Warty Growths on the Face.—In the treatment of warty growths on the face, Cantrell usually freezes the part and removes the growth by the aid of the dermal curette. If the lesion is extensive, he advises the use of an ointment of salicylic acid (thirty grains to the ounce), and at the next visit, and two or three days later, cures the part.—*Philadelphia Polyclinic*.

To Remove Nævi.—Paint around the nævus a circle half an inch wide with flexible collodion; then paint the nævus itself with a four-

per-cent. solution of corrosive sublimate in collodion. In twelve days remove the whole, and the nævus will have entirely disappeared.—*Chicago Medical Times*.

Furuncles.—Tincture of iodine of double strength, or one drachm to the ounce of ninety-five-per-cent. alcohol, when thoroughly applied to boils, etc., will relieve all pain and shorten the stages of suppuration more than one-half.—*American Medical Compend*.

Digitalis.—M. Franck reports to the Paris Academy that digitalis acts equally upon the two hearts; that an infusion of the leaves of digitalis will produce a more marked action upon the heart than a corresponding dose of the alkaloid.—*Gazette des Hôpitaux*.

Gouty Furuncles.—Sufferers from gout are often attacked by successive crops of boils, which may be successfully treated by the internal administration of colchicum and local application of strong tincture of camphor.—*Fort Wayne Medical Magazine*.

Dysmenorrhœa.—Records show that too much dependence is placed on local treatment and too little on the general management of patient as regards condition and family history.—*Medical Press and Circular*.

Pneumonia.—Doctor Ingraham, of Binghamton, New York, declares heat is the king of all remedies as regards results, immediate and permanent, in the treatment of pneumonia.—*Practical Medicine*.

Obstinate Hiccough.—Doctor J. L. Jelks, in the *Memphis Medical Monthly*, recommends a bandage applied tightly around the body or lower portion of the ribs, as a remedy in obstinate hiccough.

Measles.—In cases of retarded eruption, twenty-drop doses of fluid extract jaborandi will bring out the rash, with amelioration of general symptoms.—*Baltimore Medical Journal*.

Sound Advice.—In the treatment of diphtheria there is no one thing more needed than rest. Support the patient and let him rest. Let him alone—DO!—*Kansas Medical Journal*.

Medical Progress.

WHY ARE NEGROES BLACK?—Buffon the elder attributed the black skin of the negro to the influence of climate, heat causing the color. Orgeas agreed with Buffon, having observed the feeble development of the pilosebaceous system among negroes, who are less hairy than the whites. Eijkmann enveloped vessels with human skin taken from Malays and whites, and found that the radiation of heat passing through a black skin was not more intense than that which passed through a white skin,—in this he agrees with Melloni, Desains, Masson, and others, whose researches show that the color of an object or of a tissue has no influence on the obscure heat rays; on carefully separating the fat from the skin, however, the natural conditions were changed. In the second place, the negro possesses a more developed vascular sudoriparous system than whites; he perspires more freely, and loses heat as does an alcaraza (a form of porous jar). There is evidently a close relationship between the influence of cutaneous pigmentation and the sudoriparous glands, and the two should be studied together.

The skin of the negro becomes black after birth. Le Cat noted, in 1765, that the newborn negro was of a reddish color, the root of the nails and the scrotum alone being black; two or three days after birth the skin began to turn black. Darwin observed that the new-born Australian was of a brownish-yellow color; also that the Hindu child at its birth is white, although its parents may be perfectly black.

The adult man's skin varies according to the race to which he belongs. Aside from heat, which has been especially spoken of, other causes of equally great importance must be recognized. Light seems to favor pigmentation of the skin, and in uniform heat the light rays seem more active than the dark ones. The sun tans, and women use parasols and gloves to protect themselves from it; darkness, on the contrary, induces pallor. Aristocrats, who do not expose themselves to the air, have a light, transparent skin. The Japanese of distinction rarely expose themselves to the air without being veiled, and their skins are almost as white as those of Europeans; in Siam the high classes also have a light, transparent skin; the drawings of the ancient Egyptians, of the Etruscans, and of the Mexicans represent their women with light skins. A very brilliant light browns the skin even in cold countries,—for instance, the Eskimos are brown; the luminous inten-

sity of the long days is such that they are obliged to protect their eyes with glasses.

In India the difference between the color of skins is more marked than among us, and Pariahs black as negroes may be seen side by side with Brahmans white as Europeans. The following type is very generally seen: tall, straight, and slender; a long head, a long face, and an aquiline nose. The Brahman is especially distinguished from the Pariah by his haughty bearing. The castes are very numerous, and among them may be observed all the coffee-colored tints, the purity of which is not absolute. Among the Brahmans, occasionally, there may be two children in the same family, one white and the other black; the same is seen among the Pariahs, although the white skin is more frequently observed among the former than among the latter. Certain castes which are held in slight estimation, such as the Moukhis, and the Chamars, who live in the shade of the great palm trees, have an extremely white skin.

Humidity favors pigmentation very distinctly. The countries where there are both great heat and great humidity contain the blackest people; the natives of Barbary are very much less deeply colored than the negroes of the Soudan, yet the uniform degree of heat there is 86° F., instead of 78.4° F. as it is on the coast of Guinea. The Egyptian has remained white notwithstanding a constant mixture with the black Nubians. The people who live in the dry section of the Nubian Desert have a red skin; other races that are brown or that vary from a white to a chamois color also live in a dry country. The Abyssinians, however, in whose country the plateaux are well irrigated, are blacker. The blackest negroes in Africa are those who live in Guinea, where the greatest amount of rain falls.

In Asia, as in India, there is a close relation between the fall of rain and the color of the people: the more moist the climate is, the darker the skin of the natives; as one goes up the Ganges the climate becomes drier and the skin of the natives whiter. The Bengalese are black, but the Sikhs and the Rajputs are of a dead-white color. In America it is the same: the Brazilians are generally darker than the inhabitants of the Andes—the Portuguese, who come from a rainy country, settled Brazil, while Spaniards inhabit the Andes and the dry La Plata section; Spain is very dry as compared with Portugal, and the Portuguese in Europe have the darkest skins of all Europeans.

Heat, light and humidity are, then, all causes of pigmentation. In dealing with these three causes alone and their relative

influence, the question of pigmentation of the skin is a very complicated one. For instance, persons inhabiting a mountainous district, where the climate is cooler, have a lighter skin than those who live on the plains, although it has been seen that the Abyssinians are an exception to the rule,—the native of Abyssinia is darker on the plateaux and lighter on the plains. In Peru the inhabitants on the coast have a lighter skin than those on the mountains. D'Orbigny observed that, in America, in the impenetrable forests the savages were lighter; the darkness evidently prevented pigmentation. What causes the difference between the negro laborer exposed to the sun and the Brazilian savage who lives in the forest? The latter is more or less chocolate-colored, but not black. Are these facts sufficient to prove absolutely Buffon's assertion that the color of the skin depends on the climate? Evidently not. If they were, we should see the descendants of a white person become black, and *vice versa*. The acclimated white man does not work in the sun, and he preserves his white skin as a Brahman does. Furthermore, it would require many generations to accomplish the change.—*Médecine Moderne*.

CAN THIS BE TRUE?—From time to time we have heard rumors of the frequency with which ruptures of the perineum occur at the lying-in hospitals. The accident, usually consequent upon the use of forceps, seems to have been looked upon as a matter of no importance; a few stitches will make things all right again in a week, and when the woman is ready to get up at the ninth day she will be as well as if nothing had happened. It has even been asserted—always in a jocular way—that these ruptures are not always accidental; that the exigencies of the students' instruction in this important branch required that they should see such cases and know how to remedy them.

But a few days ago the matter was again brought to our attention in such a way as to impress with its importance. It is possible that there is a serious evil here which demands rebuke and correction. The writer was conversing with a prominent gynæcologist and dean of one of the St. Louis colleges; and, referring to the subject of practical instruction in obstetrics, this gentleman said in effect that rupture of the perineum was strikingly frequent in the lying-in hospital connected with his college—that it was the rule rather than the exception; that he had charged the professor of obstetrics with having produced the rupture in order that

his students might profit by it, and that the latter had not denied it. Now many a true word is spoken in jest, and if one may judge by the circumstances this gentleman evidently believed in the truth of what he was saying.

Such a thing seems horrible to contemplate. That a human being—an innocent young woman (at any rate "more sinned against than sinning"), often from a distant country home, far from friends and sympathy—should be submitted to mutilation merely for the gratification of the whims and convenience of students, if true, calls for loudest condemnation, and we brand any brother who would permit, much less himself perform it, as unworthy of his noble calling.—*Maryland Medical Journal*.

MUSTARD AS AN ANTISEPTIC.—I wish to call attention to the remarkably efficient properties possessed by mustard as an antiseptic or sterilizing agent for the surgeon's hands, and for the skin of the part to be operated upon. One never goes into a locality where mustard cannot be easily procured, and my custom is to thoroughly rub and scrub my hands with a mixture of green or other soap, corn-meal, and ground mustard, for about five minutes. After rubbing thoroughly into all the crevices and creases of the hands and nails by aid of a nail-brush, one may be absolutely certain that his hands are sterilized, no matter what he may have been doing previously. I have no hesitation in proceeding from an autopsy to the operating-room, if I may thus protect my hands. Used as indicated, the mustard leaves no unpleasant sensation, and one may feel that by the time it produces unpleasant tingling or rubefaction of the skin its essential oil has done its desired work as an antiseptic. I have discarded all other means of preparing the hands, and in several years' use of mustard in this way have never been disappointed, nor had the slightest reason to question its effectiveness. I might add also that it is an admirable deodorizing agent, and will take away from the hands all offensive odor of dead or dying tissues, redolence of iodoform, etc.—DOCTOR ROSWELL PARK, in *Medical News*.

A DANGEROUS POPULAR ANTISEPTIC.—The *New York Medical Journal* publishes an account of a case of diffuse external otitis, of extremely severe and resistant type, due to treating a slight itching of the ears with carbolic acid; the strength employed is not

known. Ocular symptoms and carboluria showed the systemic poisoning, and the patient was in great danger of atresia of one of the auditory canals.

The popular knowledge that carbolic acid is an antiseptic is productive of a great deal of harm. Surgeons have, until recently, regarded it as indispensable to have their instruments in a tray of carbolic solution, which, if strong enough to sterilize the instruments, destroyed the surgeon's hands for practical purposes, and if, as was usually the case, it was so weak as not to actually burn the hands, did no good as an antiseptic—circumstances which were bad for the patient, the surgeon, and all concerned. The disadvantages of carbolic acid, however, can be best seen in out-patient clinics, whither patients continually come with the skin of their hands parboiled and peeling off, exposing the raw subcutaneous tissue, more or less eroded by the carbolic acid, which a kind friend had advised them to use for a slight cut, or burn, or abrasion. The desirability of ascertaining the strength of what they are using does not occur to them. If the lay mind could only be made to appreciate that carbolic acid is always dangerous and seldom efficient as an antiseptic, a great deal of unnecessary suffering would be prevented.—*Boston Medical and Surgical Journal*.

CANCER OF THE BREAST.—A skin incision embracing a liberal area around the nipple, and running across the axilla to the point of insertion of the tendon of the pectoralis major muscle, is made. A second incision is made at right-angles to the one just described, running to the junction of the middle and outer thirds of the clavicle. After the skin-flaps are reflected, the tendons of insertion of the pectoralis major and minor muscles are divided, and these muscles, the axillary, sub-clavicular and infra-clavicular fat and lymphatics, and the diseased breast, are removed in one mass. The muscles are separated from their points of origin, and the new-growth is not cut into during the operation. The vessels entering the pectoralis major muscles are clamped before they are cut. The wound is sutured as far as possible, and axillary drainage employed.—**DOCTOR W. MEYER**, in *Medical Record*.

MICROBES.—Microbes as a class have been so roundly abused that the discovery of the fact that we cannot altogether get along

without them induces a certain sense of satisfaction. A Russian professor has been taking great trouble to determine the value of germs in assisting the body to perform its natural functions. He fed animals on food that had been carefully sterilized, and compelled them to breathe germless air. The experiment proved that the presence of microbes is necessary to digestion. The animals soon showed the effect of the deprivation. First they began to droop, then lost their appetite, and finally weakened and died. It was found that the food simply would not assimilate when the microbes were absent. This series of experiments has been extended to the vegetable world. It is now proved that certain plants can only assimilate the nitrogen which is necessary to their growth through the action of the microbes that live at their roots.—*American Practitioner and News*.

PUERPERAL FEVER.—From Hippocrates down to our times, the lore and complications of puerperal fever were mystified and vague, and not until 1860 was the disease clearly defined. Strother, in 1718, was the first to give it the name of puerperal fever. Smellie, a great compiler of the thoughts of other men, then came to the front, making known his own mistakes and failures, and, being no "secret monger," he did not fossilize his experience. Since Smellie's time much has been written on puerperal fever, but it was not until the great discussion on it, held in London in 1875, that its accurate relations to infective diseases were made apparent. Many took stock of this knowledge, and since that time, by the method of exclusion, it has been sifted by careful and successful observers.—*Medical Press and Circular*.

PECULIAR INGUINAL HERNIA.—A strangulated inguinal hernia in a child fifteen months old demanded immediate operation, when the hernial sac was found to contain the cœcum and vermiform appendix. Protruding from the posterior wall of the appendix was an ordinary brass pin, the head being within, and the point sticking out. The child made an uninterrupted recovery.—**DOCTOR W. O. ROBERTS**, in *Archives of Pediatrics*.

SPASMUS NUTANS.—Remarking upon a recent case of so-called "head-nodding," Doctor Bannatyne considers it a disease *per se*, and not to be regarded, as has heretofore

been claimed, as one of the many forms of epilepsy. He alludes to the suggestion that it arises from some reflex irritation, such as dentition, acting on an unstable nervous system. Most of the cases thus far reported began during the first year of life, and the symptoms were generally only transitory. The probability is that the incoördination in the nutrition of the cortical cells, being determined by some reflex irritation, passes first into a temporary state of increased activity and, if the irritation be severe enough or sufficiently long continued, of actual change.—*British Journal of Dental Science*.

SUSPENDED ANIMATION.—In Greek or Roman literature we may find accounts of persons who have died and returned again to earth. There is nothing astonishing in these facts, for Bouchut, in his treatise on the signs which enable one to recognize real death, reported the case of a woman who had been disinterred in order that a friend might look at her again; she was found to be alive, and she lived for many years afterward. Also in the Department of the North there was a case reported of a girl who had remained in a lethargic condition for several years. She had fallen into this condition on hearing that she was to be arrested for having committed a crime.—*New York Medical Journal*.

CHANGES IN THE NATURE OF LEPROSY AND ECZEMA.—According to J. L. Milton, leprosy is on the increase in England. In a total of 21,191 skin diseases (since 1863), he saw 1470 cases of this affection, the whole number treated by him being well upon 2000. He calls attention to the fact that the disease presents quite another picture to that described by various old-time authors, such as Willan, Plumbe, and others. A further search into the authorities of the last decade shows also that eczema has undergone a great change, and that it is much more resistant to therapeutic influences.—*Edinburgh Medical Journal*.

PREVENTION OF TUBERCULOSIS.—First, pure air for breathing: Second, active exercise, outdoor as much as possible: Third, uniformity of climate: Fourth, dress that will maintain uniformity of warmth: Fifth, careful regulation of the hours of rest by the sunlight: Sixth, outdoor occupation: Seventh, amusements that favor muscular development and sustain healthy respiration:

Eighth, cleanliness in the broadest sense: Ninth, the avoidance of the ill-effects of cold: Tenth, an ample diet, with a full proportion of the respiratory foods.—SIR BENJ. WARD RICHARDSON, in *The Asclepiad*.

TEST FOR ALBUMEN.—Doctor John G. Truax gives a test for albumen that he claims will reveal the presence of one part in 10,000 of urine, and so simple that any one can use it. A test-tube is filled with alcohol to a depth of from an inch to an inch-and-a-half, and upon this is dropped a little urine. If albumen is present, it is precipitated in a white streak; if mucus, there is a general cloudiness. If the alcohol is placed on the urine, a white ring will designate the presence of albumen, and a general cloudiness that of mucus.—*Medical Times*.

THE EVILS ATTENDANT ON STERILITY.—I dare any political economist to show me one expedient whereby conception can be avoided. I challenge him to name a single preventive which will not do damage either to good health or good morals. Even natural sterility is a curse. Show me a home without children, and ten to one you show me an abode dreary in its loneliness, disturbed by jealousy or estrangement, distasteful from wayward caprice or from unlovable eccentricity.—GOODELL.

GERMAN MEASLES.—A symptom by which rotheln is most easily distinguished is an enlarged post-auricular gland in the region of the retrahens aurem muscle. Occasionally there is a swollen gland behind both ears, but more often but one is found. Neither are ever found swollen in measles or scarlatina. The swollen gland has the size and shape of a bean, is almost always present at the first visit of the physician, but even if not found then, can be within twenty-four hours.—*Medical Brief*.

RHINITIS.—Occurring in albuminuria, rhinitis is usually a sign that the kidney disease is far advanced and the prospect of life very bad; patients seldom live longer than six months after the onset of rhinitis. If there is a combination of rhinitis and albuminuria, there is no difficulty in coming to an instant conclusion as to the future of the patient.—*Columbus Medical Journal*.



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The Medical Age.

VOL. XIV.

DETROIT, JANUARY 25th, 1896.

No. 2.

Original Articles.

REFLECTIONS ON THE MILITARY AND MEDICAL LESSONS TAUGHT BY THE LATE MADAGASCAR CAMPAIGN.

BY P. C. REMONDINO, M.D.

The conduct of the Madagascar campaign was lately the subject of a stormy session of the French Chambers. Through some mismanagement or want of proper information as to the nature of the climate and topography of the island, or some misconnection in the details of the *Intendance Militaire* or quartermaster's department as to the needs of the expedition and facilities to be found on the island, or to the badly arranged details in the employment and manœuvres of the troops on the part of the military commander in the field, the sacrifice of French lives was out of all proportion to the demands of such a campaign. The excessive losses in the 200th Regiment of the Line, amounting to twenty-six per cent. of the effective force, and the great and seemingly unnecessary losses experienced by the 40th Chasseurs, were the immediate causes of the inquiry. It appears that out of a total of 17,500 troops landed at Majunga, over 3000 died on the island; and that on the return voyage to France, from the combined effects of disease contracted on the island and improper hospital facilities on board ship, 500 more died. Out of all these fatalities only twenty occurred in battle or skirmish, while as the result of wounds received in action there could not possibly have been more than 100 deaths, as that was the complete list of wounded. We must also add to the death-roll many who found their way home, while of the invalids surviving, the majority are in a state of physical wreck.

The main causes of death were, malaria,

exposure to the tropical sun, and inordinate physical exertion in a relaxing climate. The inquiry developed several grievous faults on the part of the Government. The first of these was the recruiting of too young men for such an expedition: the 200th of the Line was wholly composed of youths—and France has none to spare or to squander. By some error in the calculations of the engineer corps, the wharf destined for the debarkation of the troops and stores did not reach a navigable depth of water, which necessitated laborious lighterage. By another error the flotilla and transports arrived in detail, which made the transfer of stores more laborious for the want of appliances which were on board some of the absent vessels. In this work of debarkation were employed the young recruits of the 200th. Diarrhœa and dysentery at once attacked these young men, and by the time the stores were landed it was found that pack-mules in sufficient numbers could not be procured for their transportation. The military authorities then decided to construct a wagon road, and to employ the men of the 200th on this work. The regiment consisted of three battalions of 1000 men, and the temporary hospital and quarters of these 3000 men were soon encumbered with the sick of the regiment. Slow malarious poisoning added its quota to those suffering or dying from acute abdominal diseases, and the muffled drums too frequently beating the dead march to the extemporized cemetery additionally served to depress the spirits of the nostalgic, enervated, and debilitated men.

Military road-construction and fortification, a healthy occupation in continental Europe, especially in the fine climates of Gaul, is quite another affair when put into practice under the tropical sun and in the relaxing humid insular climate of Madagascar; and the commander of the expedition

should have realized this. While the works of Polybius, Julius Cæsar, Vecegius, or of the Emperor Leo, furnish us much valuable instruction concerning discipline, fortified camps, and soldierly training, we should not forget that the great Cambyzes also taught Cyrus that the art of preserving the health of troops was of far more importance than that of simple military training or of strategy.

The commander of an army should understand meteorological conditions and their effects, as well as being versed in Montecuccoli or in Jomini, and this is a lesson that has been well impressed upon the French in Madagascar. The neglect of this knowledge cost England most of the effectives of the forces engaged in the ill-fated Carthagenan expedition in the last century, and the same ignorant neglect flooded England with the physical wrecks that escaped a grave in the swamps of Walcheren in the early part of this century. The same disregard of meteorological conditions ruined Napoleon in the snows of Russia in 1812, after he had foretold the destruction of the English expedition of Walcheren by climatic conditions. Grand military operations and combinations, as well as the greatest strategy, will often come to grief when pitted against inexorable physical factors or meteorological conditions.

It requires the exercise of great judgment, however, to know when and where to impose the severity of the ancient Roman discipline, and when to permit the laxity of habit that proved so ruinous to the Carthaginian soldiery of Hannibal in their last campaign on Italian soil. The French commanders in Madagascar seem to have fallen into the belief that whatever the Romans did in Gaul, or the descendants of the Gauls accomplished in Algeria or in the Crimea, must be accomplished as easily by the modern Gauls after completely exhausting their vitality by work as 'longshoremen and road-builders. However desirous the commander might have been to terminate the campaign expeditiously, the ignorance of physical laws displayed in the attainment of this end was inexcusable. I know the French soldier well, having camped and marched with him, and accompanied him in all sorts of trials during the Franco-Prussian war. He is care-

ful of his health and does not tend to run to any excesses; he is temperate and prudent in drink and in diet, and excessively generous in seconding the efforts of his officers; and I can well imagine how those willing youths in the Madagascar campaign staggered up the mountain roads under the double burden of physical debility and exhausting manual labor.

By another mismanagement the medical stores were slow in going forward and were not made to follow the troops in their march, owing to the fact that the mules belonging to the medical department were required in the transportation of the more strictly military stores. Much suffering and physical disaster was the consequence. From the explanation given by Government, it appears that only some six thousand mules could be procured, whereas about twenty thousand were required. These requirements should have been well understood and provided for, even if the supplies had to be brought from elsewhere. The morbid nature of the climate, due to its latitude and insular position, may be imagined when we are told that the excessive loss suffered by the 40th Chasseurs was the result of a forced march in the middle of the day, the corps being hurried forward as a support to the Algerine Tirailleurs who had found themselves exposed to an unexpected attack from the Hovas. The losses to this troop were from purely climatic causes; and an officer in charge of troops in such a tropical climate should understand that the rapid movements made by Napoleon in the Mantua campaign, or the equally rapid flank movements made by Jackson's men, either in the Richmond campaign ending with Malvern Hill, or in the campaign about Fredericksburg, where he made that celebrated and brilliant flank movement on Chancellorsville, are movements that should not be attempted or practiced, or their necessity courted. In this instance the troops were certainly not well in hand: the Tirailleurs were too far in advance, or the support was too far to the rear, and either the retreat of the former or the advance of the latter to form the desired junction necessarily involved such exertion and exposure as would result in a serious loss of effective men.

A commander should always have in mind

the endemic diseases to which a climate subjects unacclimated troops, when planning a movement. This implies a knowledge of the hour most suited to exercise in the locality, and of those hours when the same exercise may prove injurious or fatal. This is fully as important as the location of the ammunition wagons in their relation to a marching column which may at any moment have to deploy into a line of battle—as the effective must be a fighting effective instead of being so only in a numerical sense. Much of the military success of Napoleon was due to the fact that he paid more than usual attention to the physical and moral health of his troops, and on the least appearance of any physical disorder he often anticipated the medical officers in making an investigation into its causes. When the *Grande Armée* crossed into Russia, an unaccountable epidemic of dysentery attacked the troops, and even the Guards suffered. Napoleon at once investigated the nature and quality of the food served, and, the better to judge of these, he had a number of the privates of the Guard sit at his table. He even went so far on this occasion as to put various men on different diet, the better to reach a speedy solution of the difficulty. He was very particular in timing the feeding of his troops, so as to neither march exhausted men nor interfere with their digestion. He understood full well that to be really effective the soldier must be well nourished and buoyant-spirited; and no general ever understood or appreciated better the advantages of the ancient *Triarii* formation of the Romans, a formation that always kept a fresh body of troops on the field of battle. When these opened their ranks to permit the discomfited legionaries of the first two lines to pass to the rear, and then presented a close line of spears and shields to the exultant and headlong barbarians, it always meant the defeat of the latter. The *Triarii* were rested and were always more than a match for their exhausted assailants. The Romans here simply put into practice a form of tactics founded on physiological and psychological premises.

As the French observe, however, you cannot make an omelette without breaking some eggs, and neither can a campaign be conducted without loss of life. Raids and forced

marches will break down the stoutest constitution, and wars cannot be carried on without raids and unusual physical exertions. We must expect that ruined physiques will ever be the outcome of war. No cavalryman that followed any of our great raiding leaders on their railroad-destroying expeditions, being at times three and four days and nights in the saddle, and always on the alert, on short, dry, and cold rations, and oft-times drenched to the skin, could escape the results of the strain.

The inhabitants of the port of Marseilles, where were landed the wrecks of humanity that had escaped a grave in tropical Madagascar, were shocked to see the ruins of what had gone forth young and hale soldiers. Many of these will regain a semblance of health, but any physician who has followed the history of any number of cases of combined break-downs from physical over-strain and malarial poisonings will know full well that all future appearances of health will be deceptive. The elasticity, tone, endurance or resistance, as well as all recuperative power, will henceforth be at a low ebb, and the person so afflicted will do fairly well only as long as he is not called to stand any exposure, protracted strain, or mental worry. The very consciousness of a want of physical tone or force, and the knowledge that one may be let down at the most unlooked-for moment, robs the victim of malarial poisoning of energy or of that aggressiveness that is so necessary in the struggle for existence, as, aside from any moral lack, there is also a strong physical cause for the apathy seen in these subjects, in the disturbed blood-making powers which hardly maintain the blood in a normal state. An anæmia, more or less permanent or more or less pronounced, and in various ebbing degrees, is a sure accompaniment of the malarious condition obtained in such a campaign.

Military men, as well as naval commanders, too often ignore altogether the influence of meteorological effects and hygiene. History relates that on one occasion even as great an all-around man as Napoleon refused to take into account the warnings of the barometer as interpreted to him by one of his admirals, and, contrary to the advice of the latter, ordered certain naval manœuvres and

reviews to take place at Boulogne—with the result that his fleet was soon dispersed by the warring meteorological elements, and a portion of the smaller craft were either capsized or swamped, Napoleon himself losing his hat in the general excitement. Our naval reports are full of the too utter disregard paid to hygiene by the naval constructor, and in vain did our naval medical officers of the past rant and fight against the oft-repeated drenchings that the ship's rules required and ordered on board the old wooden ships. Catarrhal affections, rheumatism, and other like affections resulting from the prevailing musty dampness engendered by the too generous and general wetting, might prostrate the crew, but they in no wise could convince the officers of the need of applying general washings with more consideration.

The same difficulties have existed in the marines of other nations, and Fossangrives tells us in his *Hygiene* how the French medical officers long and ineffectually struggled to abolish the very injurious habit yet prevalent in the French navy, as well as in other navies, of ordering that such or such clothing should be worn for the day. The general order would, for instance, designate the white ducking suits as the uniform for the day, and by ten o'clock the sky might be obscured and the Tramontane winds come sweeping down the mountain sides of the northern Mediterranean shores, with such chilly blasts as to change the region into one of Siberian coldness, utterly regardless of the executive officer's order of the day. The sailors would then shiver and chill in their duck suits, and a crowded sick-call and a reduced effective force always followed these changes, with many an incipient case of chronic invalidism to add to the list; but no change could ever be made in the regulations.

Naval medical officers have long contended against the many evils connected with the sailor's dress, and it is astonishing how slow the improvements follow on these suggestions. It was the same when the tight breeches and tightly drawn sword-belts of the light cavalry would not permit a man to remain in the service many months before becoming a victim of single or double hernia.—In the seventeenth and in the early

part of the eighteenth centuries, the usual practice for the permanent relief of hernia was castration of the affected side, which effectually prevented a recurrence of the difficulty by the total obliteration of the hernial sac, and which in the end must have made very moral and virtuous but very lumbering and listless soldiers out of the former dashing and rollicking hussars.

In many regiments the mania of the colonels for the possession of a body of vicious, choleric, and fierce-appearing horsemen, led them so to constrict the necks of their warriors in tight leather stocks and closely fitting, high-collared tunics, that the men, whether in barrack, parade, on the march, or in battle, were always blue, purple, and apoplectic. Blindness, vertigo, aneurysms, and various apoplectic seizures were then the common accompaniment of the tightly dressed soldier's life, just as various heart and chest affections followed the use of the tight, heavy and oppressive cross-belts from which depended the great and ponderously pommeled infantry sword, and the enormous cartridge-box of the period.

Just why the soldier carrying a musket and bayonet should be encumbered with a sword, was never well understood—the sword being evidently a relic of ancient days, when the Roman threw his pilum or javelin when within striking distance, and then closed in on the enemy with his short cutting and thrusting or stabbing sword. Among the Romans it was a capital offense to be found working at the intrenchments without the side-arms, as being attacked by the enemy while unarmed jeopardized the safety of the whole camp; the soldier had, therefore, always to be armed and able to defend his position wherever found. This was before the days of gunpowder. With the advent of the blunderbuss and the musket, with bayonet affixed, all need for the sword disappeared; but by some perversity, the less need there was of this weapon the bulkier and more ponderous it became, and the infantry soldier of the early part of this century carried a sword twice as long as that of the Roman legionary or of the Greek.

There should exist a better understanding and a closer relationship between the various heads that preside over the different branches of a war department. The strictly military

branch should be able to better understand and better appreciate hygienic and medical matters, and the more strictly medical branch should understand enough of the needs of the more purely strategic as not to intrude needlessly in seeing that the dictates of hygiene and medicine are more strictly observed.

Observations made upon the dead and wounded Hovas develop the fact that in future wars wherein the small-calibre bullet is the projectile, there will be but little bloodshed or need of field tourniquets. The wounds of entrance made by the little rifle-balls seem but a small bluish puncture, and the wounds of exit exhibit no larger destruction of tissue, neither wound being the seat of hæmorrhage; and in most instances both punctures are closely agglutinated even in the dead. The hæmorrhage seemed to be wholly internal. In many instances great comminution of a traversed bone has followed the reception of the Lebel rifle-ball; in other instances the bone would simply be cleanly bored through as with a bone-drill.

The late Madagascar campaign has not been very rich in surgical results, but it will furnish the various French military departments with ample food for reflection. The British, with their continued experience in tropical lands, could have managed the campaign much better, and with much less loss of life and very much less subsequent invalidism.

San Diego, California.

THE DIRECT ACTION OF DIGITALIS ON THE CENTRAL NERVOUS SYSTEM.

BY DOCTOR DOTSCHEWSKI.

The symptoms presented by digitalis intoxication vary greatly, but as a rule the following tableau may be observed, whether the intoxication be the result of a gradual accumulation of the poison in the system, or of the single ingestion of a larger quantity: Pain in the abdominal cavity; nausea or vomiting; diarrhœa; headache or giddiness; expansion or contraction of the pupils, with disturbances of vision; at times hallucinations; cold extremities, pallor of the skin, and cold perspiration; extraordinary muscular debility. The pulse may be very irregu-

lar and accelerated, or very slow, the heart exhibiting an extraordinary irritability.

The cardiac symptoms may be explained by the action exerted by digitalis on the vagus and the heart muscle itself. It may be assumed with regard to the symptoms manifested by the digestive tract that they are produced by the direct action of the poison on the gastric and intestinal mucous membrane, as well as by the disturbances of blood circulation, although the vomiting may perhaps be explained by irritation of the vomiting centre, since it rarely supervenes until twenty-four to thirty-six hours after ingestion of the drug. All the other symptoms may be associated with the disturbance of the circulation of the blood, in consequence of the action of the poison on the heart and vaso-motors.

With respect to the action of digitalis on the central nervous system, it is held:

The central nervous system and respiration remain almost unmodified; only under the prolonged use of larger quantities do there develop, as a rule, a whole series of disturbances following retardation of the circulation of the blood and the increase of the content of carbonic acid in the blood. (Nothnagel and Rossbach.)

According to Eiger, smaller repeated doses or a single toxic quantity produce symptoms in the nervous system that are due to disturbances in the circulation of the blood. He further says that Bouillaud, Durozicz and Cloetta have observed nocturnal hallucinations as a result of digitalis poisoning. Binz states:*

Digiloxine produces xanthopsia and dimming of the vision—two symptoms which have previously been mentioned among those following the ingestion of the digitalis plant; other distinct and direct symptoms on the part of the central nervous system I have not observed, and all those phenomena which appeared therein were perfectly susceptible of explanation by appeal to disturbances of the circulation of the blood.

Thus these authors do not admit that digitalis has direct action on the central nervous system, but regard all its untoward symptoms as secondary and dependent upon modification in the circulation of the blood. Eiger, however, in his weighty dissertation on this drug, refers to certain specific effects exerted

* *Lehrbuch der Pharmakologie.*

by digitalis on the brain. Lewin, after alluding to the cumulative action and the resulting modifications of the heart function, declares "giddiness, nausea, vomiting, convulsions, insomnia, may supervene, suggesting severe affection of the central nervous system;" and while mentioning the fact that one can become habituated to digitalis, he adds that this also must be referred to the same central source. In support of this he quotes the opinion of older practitioners who had observed that the general depression, the giddiness, the sensation of weight in the head, the bedimming of vision, soon disappear of their own accord, even when the dose of digitalis is increased; also that in renewing the dose after the agent is suspended these symptoms do not recur. Herein is to be observed, apart from the influence of the digitalis on the brain, a certain similarity to the narcotic agents.

Cases illustrating cumulative action and the resulting intoxication occur frequently among those to whom digitalis is administered to effect heart-compensation. The toxic action on the heart in such cases is manifested with almost the same symptoms as those against which the remedy was employed, viz., disturbances of compensation. It is well known that in disturbances of compensation following venous engorgement in the cranial cavity, or œdema of the brain and its membranes, certain cerebral symptoms supervene, such as giddiness, sense of oppression in the head, tendency to unconsciousness, feeble capacity for thought, depressed spirits, etc.; and exactly the same symptoms are exhibited by those who suffer from a cardiac defect, since the compensating heart's action is again disturbed, whether through excessive doses or through the cumulative action of the digitalis; but in the latter case are also observed pain in the head and face, yellow vision, expansion or contraction of the pupils, buzzing in the ears, sleeplessness, hallucinations, delirium, eructations, vomiting, convulsions.—This last series of symptoms may be more readily and simply explained, in my opinion, by the direct action of digitalis on the brain, than by appealing to the disturbances of the circulation of the blood. How can a disturbance of the circulation explain the yellow vision, nocturnal

deliriums, hallucinations? Certainly these are more reasonably accounted for by referring the action of digitalis to the brain; and the opposing theory has been developed by the fact that in digitalis intoxication the disturbances of cardiac function have been most plainly visible—while the cerebral symptoms were either overlooked or regarded as secondary,—as well as by the further fact that, so far as the brain is concerned, phenomena are observed which, like the suppression of memory, nocturnal deliriums, hallucinations, xanthopsia, are, of course, not observable or scarcely observable in experiments on animals.

All this has led me to believe that digitalis does act directly on the central nervous system. Certain cases I have observed convince me of this. But first, however, I must lay stress on the suppression of memory, which occurred in a greater or less degree in each of the five, both recalling and retaining power being involved; the patients were scarcely able, or entirely unable, to repeat a sentence just recited to them. Again, stress must be laid on the fact that all stubbornly refused food, and especially medicine, though it is difficult, of course, to say what was in reality the cause of this refusal.—One believed he was to be poisoned, but whether the others held the same suspicion could not be determined. In all was observed a strong impulse to go somewhere, and in one this was so violent he could scarcely be kept in bed. Furthermore, there can be no doubt that in all there were delusions of perception, especially of hearing and vision; all conversed with people and beheld objects which were not present,—one thought he was traveling on a steamer and conversing with the captain, and another conversed with her absent daughter. These phantasies all conformed to the habits and wishes of the patient. The habitual drinker fancied he was being "treated" by an acquaintance; and in reply to a query as to whom he was talking to so loud, he answered: "My colleague is always urging me to drink, and why shouldn't one take a drink with such a good fellow?" Violent delirium occurred in no case; and all the symptoms enumerated were present in each, with the distinction that in one the suppression of memory predominated, in another the de-

lusions of perception, in a third the impulse to run away, etc.

Case 1.—Married woman of middle class, aged 31, medium stature, fairly well nourished, presented herself at the clinic, October, 1891, from insufficiency of the bicuspidalis and marked disturbance of compensation; pronounced œdema of the nether extremities, in the abdominal cavity the water reaching to the umbilicus. Urine scanty, with traces of albumen. Prescribed one tablespoonful four times daily of infusion digitalis (1 to 500). The heart's action improved rapidly after the first bottle; improvement was still more marked after the second; and with the third all the disturbing symptoms disappeared. But scarcely was the third bottle consumed when sudden symptoms of acute psychic disturbance supervened. Patient could no longer recognize her surroundings, knew not where she was, wanted to run away, conversed at times with persons who were not present. At this time the heart's action was perfectly normal; no œdema; pulse full, hard, and not accelerated (about 80); all functions regular.

In view of the psychic trouble it was necessary to resign the patient to the care of her husband. At home the psychic disturbance lasted but a few days, when she was able to resume her usual duties.

December 21st, patient returned. Heart's action was in the highest degree disturbed; the face, the upper and nether extremities, as well as the whole body, œdematous; enormous accumulation of liquid in the abdominal cavity; the diaphragm pushed upward. Breathing was heavy and so labored that she was obliged to remain constantly seated. Traces of albumen in urine. Pulse 130 and weak. Infusion digitalis (1 to 900) was prescribed, one tablespoonful thrice daily, as well as small doses of brandy in milk. The pulse frequency diminished, being 88 on the fifth day. Arterial tension increased; urine quadrupled in quantity; the subjective state improved greatly. When the digitalis was interrupted twenty-four hours, the condition was at once aggravated. The doses were perforce increased (1:400, one tablespoonful four times daily), and were followed speedily by retardation of pulse, with diminution of all the morbid symptoms. In fear of the cumulative action the remedy was discontinued for a long time after the second bottle, yet the cumulative effects followed nevertheless, the pulse sinking steadily and reaching as low as 42 on the eighth day after discontinuing the agent. Parallel with retardation of the pulse, the œdema and the asthma diminished markedly, so that the pa-

tient could not only sleep lying down, but also take short walks in the corridors. Subjective condition good; urine increased; no albumen. On the ninth day the vanished œdema returned on the nether extremities, and the subjective state became worse; the pulse rose to 82, and on the succeeding day to 100. January 13th the doses of digitalis were again renewed (1:400, one tablespoonful five times daily), when the pulse became slower each day, but headache ensued on the 16th, so that the digitalis had to be suspended at once. The next day the pulse sank to 50; general condition very satisfactory, appetite and sleep good. Patient now spent much of each day walking. On the 18th a striking irritability and sullenness was manifested, and on the 20th a complete psychosis developed. As on the first occasion, the patient began to show confusion in speech, did not recognize her surroundings, held long conversations with her absent daughter, pilfered the medicines of the other patients and hid them, refused all nourishment, so that on the 24th we had to send her home. During all this time the general condition was good; pulse quite full and regular—between 90 and 78; urine abundant; no asthma or œdema.

The striking features of this case were: First, the psychic disturbance did not supervene at the time when compensation was disturbed, or, in other words, when there were distinct symptoms of congestion and when, to all appearances, the brain membranes and the brain substance were themselves œdematous; but rather at a time when the regular action of the heart was perfectly restored and all the symptoms of engorgement had disappeared. Second, after suspending the remedy, its action persisted and even increased.

Case 2.—A laborer, aged 52, tall and powerful, on October 19th, 1893, entered hospital with emphysema of the lungs, insufficiency of the bicuspidalis, and disturbed compensation. Distinct arterio-sclerosis; lower thigh œdematous; in the abdominal cavity a small quantity of liquid; liver enlarged and painful; lips, nose, fingers, toes, cyanotic; pulse so accelerated and irregular as to render counting impossible; urine, 600 Cc. daily; asthma and cough. Prescribed infusion digitalis (1:500, one tablespoonful four times daily). Great improvement after the first bottle; pulse slower, fuller, and more regular. In taking the second bottle he declared he felt silly, had lost his memory and was inca-

pable of thinking clearly, especially at night. And in fact his answers to questions were slow and confused, as though requiring a mental effort. His face wore a peevish expression; at times he would bustle about, running aimlessly to and fro, and changing the position of things—placing the inkstand under his bed, the pillows on the table, etc. Would take no more digitalis. Caffeine was prescribed, and three days later the disturbing symptoms had vanished. From the 25th to the 29th the patient took the caffeine, but, as there was no change in the general condition, digitalis was prescribed as before, with the addition of potassium acetate, partly as a diuretic, partly to modify the taste. Three days later the previous psychic disturbances returned; the patient recognized the agent and left the clinic.

Case 3.—This varies from the foregoing in clearly manifesting a certain habituation to the digitalis on the part of the central nervous system. The patient—a farmer, aged 56, of medium stature, muscular—entered hospital with contraction of the isthmus and insufficiency of the aortal valves, pulmonary emphysema and moderate arterio-sclerosis, enlarged liver, and oedema of the lower thigh; pulse 90. The second bottle of the infusion (1:400) produced psychic disturbances similar to the foregoing. The agent was suspended, and on being again administered during two weeks the only disturbances observed were heaviness of the head and enfeeblement of the memory.

Cases 4 and 5 both accord in revealing the psychic disturbances following digitalis. In the latter case death ensued from heart-paralysis ere the mental perturbations could be overcome by discontinuing the digitalis. In case 4, as in all the other cases save case 5, the oedema and cyanosis were greatly mitigated by the specific action of the remedy, but interruption of treatment was rendered imperative by the mental indications of toxicity.

These cases possess a double interest, inasmuch as on the one hand they show the direct action of digitalis on the central nervous system, and on the other the possibility of estimating the doses which are capable of producing intoxication. It is well known that digitalis intoxication can result either from a single poisonous dose or from several successive smaller doses, which then exert a cumulative action.—All my cases were of the latter class. The doses were not given either for

a long time or uninterruptedly, yet they produced intoxication, which in the first case occurred with the third bottle, and then—after an interruption of nine days—with the second, the fifth from the beginning; in the second case, with the second bottle; in the third case, with the second; in the fourth, after using only two bottles of last year's and one of this year's digitalis; in the fifth case, with the fifth bottle. These quantities were not large, and the period of their employment was not long; the symptoms can therefore be attributed only to the particular toxicity of the active substance of the digitalis—and indeed the digitalis used in our clinic exhibited an uncommon potency; the administration of very small quantities to other patients effected a striking retardation of the pulse.

There are many species of digitalis, and their potency varies greatly. One therefore has a right to inquire whether he is really using *Digitalis purpurea* or some other species, for example the *D. ferruginea* which, according to Kobert, is ten times as strong; but this question could not be decided by appeal to the dried leaves carried in the pharmacy of the clinic. Further observation showed that our digitalis retained its unusual power for a relatively short time, and became gradually weaker; which may perhaps be explained by the fact that our cases occurred in the autumn, when the apothecary was provided with fresh material. I have since made it a custom to note on the prescription whether fresh or old material is to be used.

Tomsk, Siberia.

EMPHYEMA OF ANTRUM.

BY J. HOMER COULTER, A.M., M.D., PH.D.

One of the most mooted questions in rhinology is, When and how to operate in antral empyema. Many cases go a long time unrecognized, and thus become proportionally serious conditions; and it is certain, in the majority of instances, that if they had been recognized in the acute stage, measures could have been adopted with strong assurance of prophylaxis or relief.

Bosworth's hobby is, that any mucus-producing cavity, if closed, will degenerate into a purulent process. *A propos* of which

it may be asked, Why are not other related sinuses as frequently affected as is the antrum, since they are necessarily subject to the same conditions in a nasal pathology? As a matter of fact, the ætiology of the condition is so uncertain that in the majority of cases it is impossible to determine it definitely. Also is claimed that empyema of the antrum is naturally to be expected as the sequel of a carious tooth penetrating or impinging on the thin wall of the cavity.—With these two exceptions I omit any reference to the ætiology of the malady; likewise to pathology and diagnosis, only in so far as is required to mention those symptoms which have definite bearing upon when and how to operate.

I will presume the case is not an acute one, and that, as in the majority of instances, it has been passed over as simply a catarrh, or, as is not unusual, has given the patient so little inconvenience that the physician was not consulted until the time for prophylaxis was long past. The patient, always an adult, complains of a free discharge of pus from the nasal cavity, often periodical, yellow in color, offensive, rarely painful; sometimes there is headache, a disagreeable taste in the mouth, sensitive molar teeth on one or both sides, whether they be carious or not; ocular disturbances are not rare; the pharynx and larynx often both affected; the pus soon returns when removed from the turbinates. No case will present all of these symptoms, but all cases will present one or more.

Having then arrived at a diagnosis, what can be done? The pyæmic condition may be absorbed, but this is so rare that the most conservative surgery cannot often consider it a factor. It may break through the face; or, as is most commonly the case, if not relieved, persist as a chronic purulent or muco-purulent discharge. If there be polypi present, or extreme hypertrophy of the turbinates, surgery is a prime necessity; for the same reason, exostoses or deflected septum should have proper surgical treatment. But it may here be remarked it is not wise, as is too often done, to put the cart before the horse by attempting to relieve an ozæna before operating on the accessory sinus. Grünswold recently asserted that "in the majority of cases of ozæna, suppuration of one or more of the accessory sinuses of the

nose would be found to be the exciting cause." If this theory is true, there is still greater ground for operative treatment, and indeed there is little promise of success without such. In every case of rhinitis, therefore, it should be considered as a possibility, and either definitely eliminated or established.

The use of the electric light in illuminating the bones and cavities of the face has been relegated to the obscurity which all uncertainty eventually finds; yet though it has failed in a large measure as a diagnostic agent in the way intended, it is nevertheless of value in that it will, usually, with a very considerable degree of certainty, demonstrate the exact position, shape, size and peculiarities incident to the antrum in any given case; thus it is valuable in determining the relative value of the various operations. It is not the extreme and well defined cases which enter into this part of the subject,—that *they* should receive prompt and thorough surgical care goes without saying,—but rather those so obscure as to present few positive symptoms, and where there may be a question as to whether or not it is best to do the more radical operation of opening and curetting the cavity. Again, the severity of the symptoms does not always indicate the severity of the disease; for the natural outlet may be for some reason more or less patulous, or the accumulation of pus may escape through the opening left by an extracted tooth. Also, the symptoms of a complication or the results accruing to antrum disease must not be confused with the disease itself, and especially is this true in regard to the teeth.

The objects to be attained by any surgical procedure are: to form an exit for the pus; to destroy the pyogenic membrane; to establish as nearly as possible a normal functional activity of the cavity and the surrounding mucous membrane.

The first is not difficult, and may be done in several ways, but to destroy all the pyogenic membrane is sometimes more easily described than executed; particularly is this true if the carious condition has extended into a neighboring sinus. Then again, a reasonable deduction is that those ends, or any one of them, cannot be obtained by the use of any mild antiseptic solution or

powder which may be injected into the cavity, *via* the *ostium maxillare*, even after a more or less thorough cleansing, which manipulation is always problematical as to thoroughness, effects, and results. It is practically impossible to permanently relieve any chronic case by such procedure, unless it be by patience and persistence requiring years, perhaps, which is not characteristic of modern sufferers. It is but reasonable to presume that the pyæmic condition which these cases present will naturally induce reflex irritations, for a much less formidable cause in other parts of the body is often followed by serious reflex results, and there is no argument favoring immunity of the antrum. Among these results I believe facial neuralgia to be one of the most frequent—certainly, in every case of this character, antrum disease should be considered a possible factor; anosmia and occluded nares are also quite probable results, though scarcely reflex in character. An operation should be performed in the majority of such cases, considering: first, the ease with which it can be performed; second, the good results to be attained when properly and thoroughly done; third, the usual absence of ill-effects. Here, as elsewhere, the earlier the operation the better, when at least a reasonably certain diagnosis of pyæmia has been made; an exploratory puncture in cases of doubt is both harmless and confirmatory, hence advisable. No one operation is suitable for every case.

I now come to the consideration of the second part of the subject, namely, how to operate. The operation must necessarily be performed either in the canine fossa; through the alveolus; in the middle meatus; in the inferior meatus; or resort must be had to the Talbot-Fletcher method. In many cases there appears to exist an unusual and almost unwarranted reaction after this operation, which English surgeons are wont to term "traumatic fever," but for the occurrence of which no special reasons have ever been formulated. Conservative judgment and good surgery both oppose making a capital operation where a minor one will answer as well. If there are polypi or extensive granulations, no amount of syringing can give permanent relief, and an opening into the antrum, with thorough curetting of the cavity, is the only thing that gives promise of success. When

curetting is determined upon as necessary, then a larger opening is perforce demanded than if the case were one of simple pyæmia calling for syringing only.

Doctor Jansen performs a radical operation by reverting the mucous membrane and periosteum from the alveolar process to a point level with the top of the cavity; then with chisel and gouge he cuts away the entire anterior antral wall, cures the cavity, and packs with gauze. But such an operation is not devoid of danger; it requires a long time for recovery, and for cosmetic reasons is only warranted in very extreme cases, though where the carious condition extends into the contiguous osseous structure, or if the case has a specific complication, such an operation may be desirable.

So much has been written and said relative to the popular alveolar operation that it is almost superfluous to make any reference thereto. Hunter suggested this method 125 years ago, but I am surprised that Ashhurst, in his recent work, suggests no improvement. In view of the facts that the normal functional activity and relations of the antrum are all with the nose, and not with the mouth, and hence operative procedure should seek to re-establish the relation as nearly as possible; that very often in making the alveolar operation a sound tooth must be sacrificed; that by draining into the mouth the system is not freed from pyæmic toxins; and that any opening through the alveolus will admit particles of food,—it appears as if there is sufficient reason for opposing this operation, in spite of plugs, tubes, and valves, of varying sizes and shapes, constructed of gold, silver, platinum, bone, and hard and soft rubber, as the case may be.

The operation by opening in the canine fossa is no longer popular, and is not practical in ordinary cases.

The operations through the alveolus and canine fossa have been somewhat popular—partly, no doubt, because they could be performed by a dental surgeon, who would prefer such an operation to one in the nasal cavity: but this branch of surgery is not at all within the province of the dentist.

In 7000 skulls examined by Doctors Talbot and Fletcher, less than twenty-five per cent. presented a diseased molar condition, show-

ing that empyema of antrum is not caused by a molar pathology so frequently as has been imagined.

Mikulicz was the first to demonstrate the feasibility of puncture of antrum, by way of the inferior meatus, and he devised an instrument for this purpose in 1887.

Dundas Grant, an eminent authority on accessory-sinus pathology and surgery, says it is impossible with any certainty to determine in every case which operation is most suitable. However, certain reasons favor the operation by the inferior meatus, viz.: there is no tooth sacrifice; it is easily done; recovery is expedited; and the excretions are confined to the nose anteriorly. The opening is made under the anterior end of the inferior turbinate, at the junction of the middle and external thirds, and in case the bone is hypertrophied it is often best to remove the end entire. Then with the trocar, or with a burr turned by a dental engine or electrical motor, at the point indicated it is not difficult to puncture through into the antrum. The instrument should be large enough to give thorough drainage; it should be directed upward and outward; and after thorough cleansing and antiseptic treatment the cavity should be kept open until a healthy process has been well established; this being an air cavity, no harm results from the admission of air through any artificial opening. By this operation drainage is secured at the most dependent point of the cavity—a very important consideration,—as well as the other advantages already enumerated.

The Talbot-Fletcher operation is thoroughly practical, scientific, and technical. It consists in boring a hole through the anterior wall of the antrum at the base of the malar process, midway between the root of the second bicuspid and first molar teeth; by directing the drill upward and backward the antrum wall is easily pierced.

Chicago, Illinois.

FOUR CASES OF CÆCAL HERNIA.

BY W. O. ROBERTS, M.D.

Owing to the rarity of this affection, it may be interesting to report a few cases, all but one of which were of recent occurrence. In all,

herniotomy was performed because of strangulation; all had been victims of inguinal hernia for some time; and all were males—two old men and two children. In three instances (as is usually the case) the hernia was located on the right side, once only on the left; in all there was a complete sac, in which were found the cœcum and appendix, which constituted the entire contents save in one instance, where there was a considerable portion of ileum. In each, an operation looking to radical cure was performed, and recovery was prompt; and up to the present time there has been no recurrence.

Case 1 was an old man, nearly eighty years of age, who had had a hernia for many years, for which he had worn a truss. While straining at stool the hernia slipped down under the truss, and all attempts at reduction were unsuccessful. I saw him a few hours after strangulation had taken place, and made an unsuccessful attempt to reduce the hernia—which was of the left inguinal variety,—under chloroform. The sac, upon being opened, was found to contain the cœcum and the appendix. Both were reduced, the sac removed, and the external ring closed.

This man lived for several years after the operation, and there was, up to the time of his death, no recurrence of the hernia.

Case 2.—This was a man fifty-six years of age, who had had a hernia for quite a long time, and worn a truss. In lifting some heavy boxes of tobacco the hernia came down, and he was unable to return it. He was seen a short time afterwards and an attempt made at reduction under chloroform, that failed. When I reached the house the patient was lying on the floor with his right leg drawn up so that the knee nearly touched his chin. There was manifest shock. Tumor about the size of a cocoanut and about as tense as it possibly could be. He was again chloroformed, and I made a large free incision down to the sac, separating the latter—as I always do before opening it. After arresting all hæmorrhage, the sac was opened, and within was found the cœcum with several feet of ileum; there were no adhesions, and no omentum in the sac. After dividing the stricture, the contents were reduced, the sac removed, and the wound closed. It was a direct hernia. Patient made an uninterrupted recovery.

The operation was performed the early part of July, 1895, and up to the present

time there has been no recurrence of the hernia and he has not worn a truss.

Case 3.—This case was a child one year and three weeks old, that had hernia since birth. The mother, however, had never had any difficulty in reducing it, and a truss had not been needed. The evening before I was called the child had symptoms of dysentery—passage of bloody mucus from the bowels, vomiting, and a great deal of pain. The hernia had come down, the mother had made several unsuccessful attempts to reduce it, and a physician was summoned next morning, who found the patient suffering a great deal and the hernia very tense. There had been excessive vomiting since the previous evening, but no action of the bowels. He advised immediate operation; about ten o'clock I arrived in response to summons, and herniotomy was agreed upon. In cutting down to the sac, it was found to be very thick; making a slight puncture, it was found to contain little or no fluid; dividing the sac thoroughly, I came upon the appendix, and found protruding through its posterior wall a pin, the head being in the end of appendix, with about half its length protruding through the wall. The appendix was removed, and the stricture divided; the cœcum, which composed the remaining contents of the sac, was reduced, the latter removed, and the canal closed. This patient made an uninterrupted recovery, and there has been no further trouble as far as the hernia is concerned.

Case 4.—This was a child about five years of age, who had had a hernia for quite a long time and had worn a truss, but the latter had never given comfort and did not keep the hernia up when the child cried or strained at stool. I removed the truss and told the mother I would operate the following day. That night, however, I was sent for in haste and found the hernia strangulated, so operated at once. There was considerable fluid in the sac, the solid contents being simply the cœcum and appendix. I felt very much tempted to remove the latter, but as it would have increased the danger of the operation to a certain extent, I refrained. The hernia was returned, the sac removed, and the opening closed, and the child recovered without an untoward symptom.

Louisville, Kentucky.

FOREIGN BODY IN TONGUE.

BY H. M'KENNAN, M.D.

It is for the purpose of showing the extreme tolerance to retained foreign bodies of an

organ much in use, that I present a report of the following case which occurred in the practice of a neighboring physician, through whose courtesy I am permitted to present the facts as herein stated:

While Otto J—, aged 14 years, was shooting with an old rusty gun, January 18th, 1895, the barrel burst and produced the following injuries: Face considerably burned by the powder; cut through the left side of the lower lip about three-fourths of an inch in length; three of the upper teeth and a large piece of the inner surface of the alveolar process gone; a smooth, clean-looking wound of the tongue about the size of a silver ten-cent piece a little to the left of the apex, with no evidence of a foreign substance present—the whole organ swollen, and boy was unable to talk. The parents opposed the use of anæsthetics, and the doctor cleansed and dressed the wound as perfectly as the nervous condition of the patient would permit. On the following day the salivary glands exhibited unwonted activity, that persisted through the day. Patient could not articulate sufficiently to be understood; was totally unable to swallow, hence was fed by means of a stomach-tube. It was not until the third day that he was able to swallow liquids, and then only sparingly. He improved gradually; in the course of a few days all the wounds were healed, and at the end of a month he was able to attend to his usual farm duties. He claims to have then suffered no pain or inconvenience, except that his tongue seemed heavier than ever before. He was able to talk as well as usual.

One day while at work he noticed the click of a metal substance against his teeth. He immediately presented himself to his physician, who was greatly surprised to find, protruding from the former wound of the tongue, the screw end of the breech-pin from the old gun. This foreign body had remained imbedded in the tongue fifty-four days, which is astonishing when is considered the fact that it measured one and a half inches in length, three-quarters of an inch in width, and half an inch in thickness, and weighed three-quarters of an ounce.

Owing to the protected position of the tongue in the body, injuries to this organ from external violence are comparatively rare. When injuries do occur (eliminating those produced by the patient's own teeth) they are usually in the nature of gunshot or penetrating wounds. In Dennis's System of Surgery, vol. i, page 488, Doctor Conner says:

"In passing through the mouth, a bullet often wounds the tongue, either grooving it or tunneling it. In rare instances the ball does lodge, and cases are on record in which it has remained in place for years."

It is not surprising that a smooth, symmetrically shaped bullet might remain imbedded in the muscular tissue of the tongue for an indefinite period of time, but when are remembered the weight, size, and rough and irregular surface of the foreign body in this instance, together with the length of time it was retained, it must be admitted the case was somewhat unique; so far as I have been able to ascertain, it is without a parallel on record.

Paris, Illinois.

A CASE OF LEUKÆMIA.*

BY DOCTOR W. J. BRAND.

Mrs. W. Y—, 32 years old, German by birth, in August 1892 was attacked with diarrhœa, and was ill for three days. The diagnosis was leucocythæmia, also called leukæmia. She never had malarial fever—had not been exposed to malarious influences. Had one child, a girl.

In July, 1893, she was again taken with diarrhœa; examination showed that the spleen was somewhat enlarged. I again questioned her regarding chills and fever, and the answer was negative. Administered quinine, iron, etc., without result. The spleen continued to grow, enlarging up to death, at which time it weighed fourteen pounds,—the normal weight is about seven ounces. Its dimensions were fifteen inches in length and twelve in breadth,—a normal spleen is five inches in length and three or four in breadth. The liver weighed thirteen and three-fourths pounds, and its dimensions were fifteen by fifteen inches,—a normal liver weighs from three to four pounds.

Since Bennett first designated this disease in 1845, this is about as large a spleen and liver as have ever been reported; Virchow has reported several of approximately the same size, but none larger.

The right kidney was also enlarged, being

six by four inches and of twelve and a half ounces weight. Its fellow was normal. The supra-renal capsules were entirely atrophied. The diaphragm was pushed up on the right side. Stomach and intestines were normal; the uterus, tubes, etc., in natural condition, except that the left ovary was a little larger than the right. The omentum was almost entirely gone, and as for adipose tissue, there was none in the whole body; the arms over the humerus were simply covered with integument, likewise all other portions of the body. The abdomen was very thin—that is to say, the muscles were very thin and atrophied.

Three years ago this woman weighed 142 pounds; but at the time of her demise, after removal of the spleen and liver, she would not weigh eighty pounds. She had all the symptoms of splenæmia as laid down in textbooks, and one of the most prominent and disagreeable was hæmorrhage. In August, 1893, she had a menorrhagia for four weeks, which I could not stop by curetting, or by tamponing with tannic acid, iodoform gauze, and pure carbolic acid. She had a great deal of trouble with epistaxis, that was alarmingly profuse; and a few weeks before her death a doctor in my neighborhood extracted a tooth for her (which he did not want to pull, but she insisted), and he had his hands full to control the hæmorrhage—it took some three or four days to stop it. One other thing: This lady, when she was three or four years of age, had enlargement of the cervical glands, which suppurated and ruptured, and left some unsightly scars of the neck.

The duration of this disease is usually from six months to three years, but this patient was, I think, affected much longer than that. No doubt, if I had been permitted to go farther with the post-mortem, there would have been found a diseased condition of all of the glands and the marrow of the longer bones. She also had a valvular insufficiency. She was treated by many reputable physicians, and by all the Christian Science, hydropathic, and Voodoo quacks of the city; and some of the physicians made the mistake of diagnosing the enlarged spleen as ectopic gestation, which they could have avoided by examining the blood, as the white blood-corpuscles were about one to three of the red.

Detroit, Michigan.

*Read before the Wayne County Medical Society.

Reports of Societies.

WINDSOR (ONTARIO) MEDICAL ASSOCIATION.

At the meeting of the Windsor Medical Association held January 14th, 1896, Doctor Holmes of Chatham read an able paper on Puerperal Convulsions, which was exhaustively discussed.

The following resolutions of condolence were unanimously adopted:

To Mr. and Mrs. John E. Brooke, Chatham:

The members of the Windsor Medical Association, feeling deeply how great a loss the profession and the city have sustained by the death of Doctor D. E. Brooke, desire to extend to you, his father and mother, some expression of the profound sympathy they feel for you in the sudden and terrible affliction that has fallen on you in the calling away of so worthy and so honorable a son. His earnest devotion of all his skill and compassion to those who for years had entrusted their lives to his care, has made many homes in our midst feel that they too are among the mourners at his grave. But to us, who have known him best and have known of all his sterling worth and manly generosity—to us who have been his colleagues in the labor of his life—it surely seems that among us all it was the strongest in all that was worth imitating that has fallen so suddenly by the way, and that a place is left in our ranks that none may hope soon to fill. In the remembrance of his life and the gloom that his death has cast over the city that was his home, we shall in the years to come have one long reminder of how deeply a life of honor and devotion may stamp itself on a great community. And in saying this to you, his parents, we may not forget to bear testimony to the knowledge that among the many virtues of your son, the first and last and greatest of them all was filial affection. May the Father of us all, whose compassion is ever extended to the sorrowing heart, lighten that load of grief that has fallen on you so nearly at the sunset of life, and help you to feel how great and how much comfort may come from even the recollection of a son whose life was never tainted with dishonor's stain.

To Doctor and Mrs. Carney:

The members of this Association, knowing how terrible an affliction has fallen on the home of one of its most worthy members, accept this their earliest opportunity of conveying to Doctor and Mrs. Carney some expression of the profound sympathy they feel for them in their very sad bereavement. The loss of an only and most affectionate daughter, just at the dawn of womanhood, with all the suddenness and amid all the incidents that could add distress and sorrow to the parting, make us realize to some extent how hard it must be to bear so great a load of grief. We know enough of it all to feel how little human words can do to assuage such a flood of sorrow or to comfort those who cannot be comforted, but there are hours of deep compassion that draw human hearts so close together that we seem to help to bear each other's burdens, and it is with sentiments like these that we desire to ask this little family in their bereavement to let us help to share their sorrow.

J. E. ASHBAUGH, *Secretary.*

Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

NUCLEIN.

Editor MEDICAL AGE:

C. W. F——, aged thirty-five, had pleuritic effusion of the lungs about five or six years ago, and was aspirated therefor; has since been under treatment by several physicians, and under advice has twice visited California, but with no benefit except rest from business cares. Has had two hæmorrhages every year, a bad cough, and for the last year purulent expectoration and gradual wasting.

October 25th last, I began injecting ten minims nuclein solution, increasing by five minims per day until the daily dose reached fifty minims—this is the most he has used. From October 25th to December 9th he gained two pounds in weight. There was no disturbance of either temperature or pulse, save on one occasion when the former rose one-tenth of a degree. His expectoration before treatment was copious and purulent, but now is very small in quantity and slightly frothy; cough very much moderated,—in fact his general health is better than it has been for years, and he is now able to go to his office regularly and give attention to his work. His friends remark upon his improved appearance and absence of cough, and he goes out in all weathers. Formerly he suffered considerably from shortness of breath with the slightest exertion, but now takes exercise without this inconvenience. Does not object to the small amount of pain caused by injection, and no abscesses have formed since treatment began. Pulse never above eighty, and no night sweats either before or since treatment commenced.

C. J. MORSE.

Amherst, Nova Scotia.

MARK THE FACT!

The *Ladies' Home Journal* has decided to decline all advertisements of a "medical, remedial, or curative nature," upon the ground of unwillingness to assume the responsibility, slight as it might be. This is certainly a courageous move, and should be appreciated by the profession. Other magazines would do well to follow suit. It is to be noted, moreover, that the reform does not originate with the religious press, which is admittedly the delight of patent-medicine men.

THE MEDICAL AGE.

A SEVEN-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JANUARY 25th, 1896.

Editorial.

DEATH OF ALFRED ELY BEACH.*

It is with profound sorrow that we announce the death, from pneumonia, on New Year's Day last, of Alfred Ely Beach, for many years the editor of *The Scientific American* and *The Scientific American Supplement*.

Though not a medical man, Mr. Beach has been of inestimable help to the profession—to such a degree, indeed, that he seemed almost one of ourselves. He first conceived the idea of popularizing the sciences and of bringing before the members of each and every branch the best from all tongues and sources. By establishing *The Scientific American Supplement* he brought to even the most impecunious the latest news of medical progress and the cream of all medical literature—a glance at the catalogue of this publication reveals that much that must otherwise have lain fallow, except to those possessed of plethoric pocket-books and polyglot education, has been brought within the reach of every practitioner. Translations from the best Russian, French, German, Italian, Spanish, Swedish, and Dutch medical literature constantly appeared in its columns—an enterprise due to Mr. Beach alone. The result is that to-day *The Scientific American Supplement* is as essential to the knowledge of the world's progress in biology, physiology, anatomy, and pathology, as are any of the current

text-books, and is moreover oftentimes more reliable than the majority of the latter. Further, many of the new discoveries first made their appearance in its columns. The death of Mr. Beach, therefore, is a matter of grief to our entire profession, even though we have the assurance the work which he founded will be continued.

Mr. Beach was the son of Moses Y. Beach, who established the New York *Sun* and conducted it for many years. He was born in 1826 in Springfield, Massachusetts, educated at Monson Academy, and later entered his father's office, where he acquired a practical knowledge of newspaper work. In 1846 he and his former schoolmate, Orson D. Munn, founded the firm of Munn & Co. and became the proprietors of *The Scientific American*, which at that time was the only weekly journal of its kind published in North America.

For nearly fifty years Mr. Beach was active in the editorship of *The Scientific American*, and in the direction of the extensive patent business of the firm. With his inherent taste for mechanics and all branches of science, he was well adapted for this business; and his sympathy rendered him very helpful to inventors and other men of genius.

About 1852 he invented the first type-writing machine, which was subsequently exhibited at the Crystal Palace Exposition, London, as also at the American Institute Exhibition in New York (1852 to 1855), receiving the gold medal of the latter as one of the most ingenious and important inventions that had ever been exhibited. This apparatus had the key-board, the pot of type-bars, the ink-ribbon, the spacing bar, the paper moved by keys, etc., the principles of which are now carried out in all writing machines.

Thirty years ago Mr. Beach also devised a system of carrying letters by means of underground pneumatic tubes from the street lamp-posts directly to the central postoffice, a procedure that has been of practical utility in many foreign countries. In 1867, at the American Institute Fair, he had in operation a section of a pneumatic elevated railway, on which many people rode; and the success of this experiment so convinced him of the value of pneumatic power for general traffic that he conceived the idea of constructing a

*The editor is indebted for such details of Mr. Beach's life as he was not personally familiar with, to Mr. F. C. Beach and Messrs. Munn & Co., to whom thanks are also due for the portrait which is reproduced in this number.

tunnel under Broadway, and likewise planned a system of underground railways in connection therewith for the entire City of New York.

In 1869 he constructed a section of underground railway from Warren to Murray streets, which work was executed while traffic was going on overhead, by means of the Beach hydraulic shield, a device now in common use by engineers in all parts of the world—it was this same machine that rendered possible the construction of the great railway tunnel under the St. Clair River between Sarnia and Port Huron; it was also used for the underground railway tunnels in London and Glasgow, the Hudson River tunnel, and similar works.

Under the firm name of Munn & Co. Mr. Beach and Mr. Munn were associated together fifty years, lacking a few weeks, and many of the employés of this firm have grown gray in their service. Mr. Beach was also the founder of an institute at Savannah, Georgia, for the education of freedmen.

A most genial, kindly, liberal, warm-hearted gentleman, Mr. Beach was one whose friendship once gained was something to be proud of—it was a friendship ever enduring. He endeared himself to his intimates; and though inclined to be somewhat reserved, once this was broken through the warmth of his true nature appeared. A keen reader of men and events, with unusually quick mentality and ability to grasp any situation, his scope of practical knowledge was wonderful.

He is already missed—greatly missed—even by those who only knew him by correspondence or through his publications. Every medical man who knows of his work, or has any appreciation of what he has done for the profession, must feel that one of the great lights has passed into the unknown.

Mr. Beach leaves a widow, one daughter, and a son, and the latter, who is possessed of much the same taste as his father, presumably will continue the work so illustriously begun.

WHAT IS EDUCATION COMING TO?

Under the caption of "Scientific Temperance," Doctor David S. Jordan, in the *Popular Science Monthly*, administers a scathing rebuke to those individuals of the "rule

or ruin variety" who insist upon having their own way, regardless of truth and reason or of the rights and feelings of others. Doctor Jordan's ire is justly aroused by the fact that in the State of New York an Act took effect August 1st, 1895, which has led to revision of the text-books on physiology intended for the public schools, by one Mary H. Hunt, who dignifies herself by the title of "Superintendent of the Department of Scientific Instructions of the National Woman's Christian Temperance Union." Like supervision has also, recently, been exercised over the text-books of the schools of the State of Indiana. In both instances the science of physiology has been sacrificed to denunciation of alcohol and narcotics, regardless of facts. As Doctor Jordan remarks, "in two pages of the Indiana series are found twenty-one distinct ideas as to the evil of tobacco or alcohol. . . . No addition of strength comes from dilution or repetition, and still less do the gigantic reasons why men should live sober lives gain from association with arguments based on doubtful observations or spurious interpolations."

In sixty-seven pages of the New York books appear sixty different ideas, "many not relevant to the subject in hand, the space being filled by repetition, quotations, and padding. Apparently this was not the author's original plan."

It is evident from Doctor Jordan's strictures that such a work as is contemplated by the law and is insisted upon by the "Supervisor of Scientific Literature" cannot be written by a scientific man, and the inclusion of so-called "scientific temperance" means the promulgation of a very intemperate tract and entire disappearance of scientific physiology. Extravagant statements are made when only the most moderate are the truth, and it would appear that if alcohol and its effects are mentioned at all in works on physiology, the true scientific spirit would demand that the whole truth, and that only, be told; but instead, in these two works purporting to be put forth for the education of youth, the text is forcibly taken possession of by a clique remarkable for more zeal than honesty and prudence, who demand that a scientific subject shall be prostituted to expressions of their own untruthful and intemperate ideas.

Earnestness of purpose or the importance of a reform can be no justification for dishonesty or faddism, for a lie cannot add to the value of the truth, but tends to detract from it, and even school children are not fools or devoid of ordinary perception.

Doctor Jordan points out that this has made an opening for all sorts of evils, and suggests there is now a likelihood that the purveyor of baking-powders will next demand a place, under the guise of scientific information, in text-books of physiology intended for public schools. We have no grievance against the W. C. T. U., but we do emphatically insist that when they transcend the bounds of truth and reason they shall confine their intolerance, even when disguised as scientific "temperance," within limits where it will work no harm.

UTERINE INERTIA.

A query recently propounded to THE MEDICAL AGE recalls a circumstance happening some fifty years ago in Scotland, and recorded in the *Medical Gazette*:

A farmer in the neighborhood of Edinburgh, son of an eminent surgeon of that city, frequently had cows in great distress during accouchement, and now and then, perhaps, like other farmers, lost a cow in the act of parturition. On one occasion, when a poor animal of considerable value had been suffering for a very long time, and there was every prospect of an unfavorable issue, and it seemed inevitable the creature must die undelivered, the owner hurried into Edinburgh and took counsel with the eminent veterinary professor, Mr. Dick. At the suggestion of the latter, with all expedition possible six or eight quarts of tepid water were thrown into the animal's uterus, the hind quarters being previously elevated so as to prevent a return of the fluid. The liquor amnii had completely escaped at the early stage of labor, and it was twenty-six hours after this event when Professor Dick's ingenious device was applied; and by this means it was found by external palpation that the calf was once more floating freely in the womb cavity. The animal, however, was so completely exhausted there seemed no hopes of the calf being expelled by natural

efforts; nevertheless a few minutes after injection a vigorous pain came on and a live calf was delivered; the cow sustained no other ill consequences than a few days' weakness, the natural effects of previous suffering.

Commenting upon this fact the *Medical Gazette* added: "A neighboring surgical accoucheur in large practice was so much struck with the simplicity and apparent safety of the operation, that he subsequently adopted it, with unqualified success." In one instance it supplied a need that avoided the use of long forceps. On a second occasion, but for the water injection, turning and forcible delivery would have been indispensable to saving the patient's life. In many other cases by the injection of a quart of tepid water the patients were delivered of living children without any unfavorable symptoms ensuing.

It is remarkable this procedure has not obtained more general recognition, since its value does not admit of a shadow of doubt; and with modern aseptic measures there is no reason whatever why it should not become a general procedure, thus obviating long suffering, often the need for forceps, preventing further exhaustion to the patient, and avoiding the accidents that of late are of too frequent occurrence resulting in torn and lacerated perineums.

VIVISECTION OF IDIOTS.

The following, which appeared as an editorial in the *American Naturalist*, presents such a wide scope of application that we venture to reproduce it entire:

Intelligent people are best deceived by intelligent frauds. A fraud, in order to succeed in the United States, must make pretensions to superior knowledge. The alleged or actual graduate of medicine who desires to be a fraud has a pretty good field in this country; and his successes are ever with us, in spite of the opposition of the many true men of that profession. The scientific fraud has not yet developed very largely, as there is no money to be made by pretense in this direction. In fact, this species of the genus is not generally a person of evil intentions, and errs chiefly through an active imagination, and perhaps sometimes through a tendency to megalomania.

We are moved to these remarks by reading an article in the December number of a Chicago jour-

nal called *Self-Culture*. On page 587 we read: "Examination of the brain of such an idiot before its education has begun, shows but few brain-cells, and a few nerve-fibres connecting them. And when a post-mortem has been made upon the child that was once an idiot but that has been lifted up by long years of patient training to citizenship in the moral and rational sphere in which we live and move, such a post-mortem shows that an infinite number of brain-cells have been created *de novo*; that fibres becoming necessary have *appeared*, to connect such cells, centres of sensation and emotion and thought."

Now the author of this paragraph should refer us to the published articles which describe the removal of the brains or parts of brains of idiotic children for sectioning and microscopic investigation, and the subsequent replacement of these organs or parts of them in the crania of the children in order that they may undergo the "long years of patient training" which follow. We would like to know the technique of the operation, and the name of the operator and that of the institution where he operates. Some grown persons might desire to secure his services, and almost everybody could point out some one else to whom they think such a course of treatment would be useful. Some peculiar conditions might be found which it would be desirable to remove permanently, and so save "the labor of long years," etc.

The editor of the journal, on page 609, stimulates our curiosity further by saying that "Professor Elmer Gates, a psychologist who has for several years been making elaborate studies both in Washington and Philadelphia, has added not a little to our knowledge of the development of the brain and the relation of particular parts of the brain to thought and emotion and the use of particular parts of the body. The view, indeed, is not new, but the confirmation given by Professor Gates's researches is very interesting." He then quotes Doctor Julius Althaus as to the supposed seat of activity in the brain, which embodies a general statement of the little knowledge we have on the subject.

The question naturally arises as to the alleged researches of Doctor Gates,* and the extent to which they have confirmed our hypotheses on this subject, and if so, as to where they were published? The editor does not tell us. This is a pity, for assertions without authority are useless to science. Is there any connection between these researches and the alleged vivisection of idiots recounted in the article we first quoted? The name signed to the latter is not that of Doctor Gates, so we are quite in the dark. A journal which publishes an article by Sir William Dawson, and writes up the universities, ought to give us more light on these wonderful researches.

*No such person appears in Polk's Directory of Physicians, and the eminence of the individual is very obscure.—ED. MEDICAL AGE.

ARE IMAGES FORMED UPON THE RETINA?

That real images of objects are formed upon the human retina, seems to be supported by a series of experiments carried out by Mr. W. Ingles Rogers, and described by him in the *Amateur Photographer*. Mr. Rogers looked at a shilling intently, in ordinary daylight, for a full minute, with the idea of fixing the image of it distinctly upon the retina. He then drew a yellow screen over the window of the room in which he sat, so as to exclude all actinic light, and, placing a photographic plate in a certain position, fixed his eyes upon the centre of the plate, at the same time allowing nothing but the image of the shilling to occupy his mind. He remained looking at the plate for forty-three minutes, and afterwards developed it, with the result that an outline of the coin was clearly shown upon it. The "psychogram," as the resulting picture is called, was sufficient to show that better results might confidently be expected. Accordingly, Mr. Rogers continued his experiments, and, in order that there should be no doubt about the *bona fide* nature of the result, he produced a psychogram in the presence of three trustworthy witnesses, whose testimonies as to the genuineness of the photographs accompany Mr. Rogers's communication. On this occasion a postage stamp was used instead of the coin. The stamp was looked at in a strong light for one minute. It was then removed, a plate was put in its place, and the plate was looked at for twenty minutes. The resulting psychogram is reproduced in the *Photographer*, and, although there is an absence of detail, sufficient is seen to prove beyond doubt that a picture of an object, impressed upon the retina, can send out vibrations which will result in the production of an image upon a sensitive plate. The result is of great interest not only to photographers, but to students of physiological optics. It is to be hoped the experiments will be continued.

EDITORIAL NOTES.

The Difficulties of Biology.—

It is now nearly twenty years since the brilliant, if brief, career of *Bathybius* was extinguished by the discovery that this primor-

dial organism was in fact no organism, but a colloid precipitate of calcium sulphate produced by the action of alcohol on sea-water. Ten years later, however, Bathybius, or its next of kin, seemed to come to life again in the form of a remarkable protozoön parasite discovered by M. Moniez in the body cavity of certain small fresh-water crustaceans (Ostracoda and Cladocera), and named by its discoverer *Schizogenes parasiticus*. This creature was described as an irregular-shaped disc of homogeneous, slightly refractile protoplasm, which showed no differentiation into zones and contained no nucleus, no contractile vacuole, and no granule of any kind. It was stated to exhibit a certain power of movement, and to reproduce itself by fission or constriction. It would appear, however, that *Schizogenes* is not to escape the fate of its more illustrious predecessor. Now Doctor G. W. Müller, well known by his monograph on Ostracoda, has found that the *Schizogenes* of the Ostracoda is no organism, but the viscid, chitinous secretion of the so-called shell-gland. The secretion shows the different shapes and movements characteristic of *Schizogenes*, owing to the absorption of water. *Schizogenes* can, in fact, be created at will by compressing the fresh shell-gland of an Ostracode in water, beneath a slip of glass.

Is it a Case for Damages?—

A St. Louis surgeon has been sued for \$15,000 damages for the publication of the portrait of one of his patients in connection with the report of the case. He was, to be sure, granted the privilege of taking a photograph of the child, but for his personal use only. There was no permission sought or given that it should be published.

Cantharides and Albuminuria.—

At a recent meeting of the Académie de Médecine M. Lancereaux recommended strongly the use of cantharides in the anasarca following acute nephritis where the epithelial tissues are involved.

Noteworthy.—

A physician of Edinburgh reports the case of a demented, insane, deaf, dumb and blind man of seventy, whose brain weighed, immediately after removal, 65¼ ounces.

Items and News.

Food for Thought.—

It sometimes costs something to "give something" without reading. In the Paris court presided over by M. Fabre, a druggist was convicted for filling a prescription illegibly signed, coming from an empiric practicing without a diploma, who had prescribed for a patient with whooping-cough. "The defendant," said the judge, "has violated the law that holds 'a pharmacist must not dispense drugs except on the prescription of a doctor;' that 'he must verify not only that the prescription is regular, but likewise if it is really signed by a regular physician;' that 'he must not be content with an illegible prescription presented by the first comer.'" The druggist was fined 500 francs.

How would American druggists, who all, more or less, practice medicine on the quiet, enjoy such enforcement of law? Yet there are laws in the United States that forbid druggists from prescribing or dispensing medicines except on physicians' prescriptions. However, it is only a strong government that enforces its laws, or rather, that respects its laws sufficiently to see that they are enforced. In France the law protects not only the doctor, but the pharmacist, and mutual interdependence gives every man his honest professional dues and a fair living.—*Lancet-Clinic*.

Sic Transit Gloria Mundi.—

The glory of the Klebs-Loeffler bacillus is passing away. The culture test which was to supersede the clinical observation of the disease, and upon which the diagnosis of diphtheria was to be made, has proven a flat failure, and the New York Board of Health has dropped from its circular, announcing the result of the bacteriological examination, "the case is therefore one of true diphtheria," when the Klebs-Loeffler bacilli are found. We understand that another step forward has also been made, and that now no patients are sent to the hospital unless the clinical manifestations of the disease are present to corroborate the bacteriological report. It is only a question of time when the bacteriological investigation will be dropped and another fad will have come to an ignominious end.—*Pittsburg Medical Review*.

In re Tablet Triturates.—

A very seriously objectionable feature in the tablet triturate has recently been brought to light by a surgical operation performed in

England, and mentioned in the *Pharmaceutical Journal*. The patient, under qualified medical advice, had for some time been taking tablets of salol, prepared by a firm of manufacturing chemists. Later on, intestinal obstruction was set up and an operation became necessary. On opening the body the intestine was found packed with the salol tablets, unaltered. This was probably due to the pressure used in manufacturing. The more finely comminuted and loosely packed an insoluble or difficultly soluble remedy, the easier it is absorbed by the system, and consequently substances like salol should never be given in tablet form.—*National Druggist*.

Undesirable Immigrants.—

Doctor J. W. Achorn communicates to the *Dietetic and Hygienic Gazette* some interesting facts as to the physical condition of some of the immigrants admitted to this country from abroad, practically without examination—facts which should claim serious consideration by our national law-makers. He says that a steamer on which he returned from Europe brought 600 Italians, Hungarians, Polish and Hungarian Jews, Russians, Bohemians, Arabs, and other steerage passengers, among whom were seven lame and eighteen deformed. He examined 153 of the total 600, and found four cases of advanced phthisis, six of inherited syphilis, two of foetid abscess, three of syphilis, one of delirium tremens, nine of rickets, "any number of skin diseases, parasitical and otherwise," two of favus of the scalp, and three of chronic ulcer of the leg. Only one of the 600, a man with cataract of the left eye due to syphilis, was refused admission to the country.—*American Journal of the Medical Sciences*.

Cokki or Cocsi.—

Of medical terms probably none is more persistently mispronounced than *micrococci*. The hard sound of the second "c" is warranted by neither authority nor analogy. The *Century Dictionary*, the best as well as one of the most liberal in matters of pronunciation, gives *si* as the sole pronunciation of the last syllable, and Gould and Foster do not give their opinion at all. One of the few rules of pronunciation fairly well adhered to in the English language, as well in words of Greek origin as in others, is that of giving the soft sound to "c" before "e" and "i." *Coccyx*, *bacillus*, *vaccinate*, and many other words show this sufficiently. If the hard sound is given, let us at least spell the word with a "k."—*Cleveland Journal of Medicine*.

Medical Education.—

It is far better to have a general acquaintance with all that is around us, though it be not very deep, than slices of profound knowledge, placed sandwichwise between layers of utter ignorance. The student should be brought to feel that his examinations, so far from being a source of harassment and worry, are really his best friends, guiding his work and at the same time gauging his attainments. A carefully prepared list of suitable questions should be accessible to the candidates. *Viva voce* examinations are objectionable. To check incompetent and idle men from entering the profession, the key is in the hands of the examiner.—JONATHAN HUTCHINSON, in *British Medical Journal*.

Disinfection in the Barber Shop.—

According to *El Restaurador Farmaceutico*, it is proposed to impose upon all Spanish hair-dressers and barbers the duty of seeing that all their instruments, brushes, etc., are sterilized after being used. This is already done in Nordhausen, Saxony, but it is suggested that, as all dermatologists and hygienists recognize that many of the diseases of the skin arise through the medium of the barbers' instruments, the obligation should become general. To this end it is sought that a law should enforce the disinfection of the instruments which may have been used, by being immersed in a solution of carbolic acid, while the scissors and razors are to be heated after each operation.—*Druggists Circular*.

Would There Were More!—

There is only one drug store in New York, and that is on Fifth avenue: the rest are mere shops. This institution keeps no patent medicines, and no proprietary articles of any description. It is simply and purely a prescription drug store. Ten prescription clerks are employed and kept busy. On the second floor are some of the finest microscopes in the world, and these are in constant use. The leading physicians of the city are the patrons of the place, and all their analyzing is done there. The annual income of the proprietor from prescriptions and analyses alone is over \$25,000.—*New York Sun*.

The Wise Serpent.—

He: "The serpent knew what a woman was when he entered the Garden of Eden."

She: "Yes, he knew woman, and man, too. You remember the story, I see."

He: "Of course."

She: "Yes. He tempted Eve through her reason; he tempted Adam through his stomach."

Book Reviews.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

The January number is replete with good things for both young and old. The verse is by Annie E. Tynan, Guy W. Carryl, Ruth C. Loverin, Virginia W. Cloud, Anna M. Pratt, Laura E. Richards, Kate D. Wiggin, and Tudor Jenks. The second installment of "Letters to a Boy," by Robert Louis Stevenson, appears; also four more chapters of "The Prize Cup," by J. T. Trowbridge; part second of "Betty Leicester's English Christmas," by Sarah Orne Jewett; chapter XIII of "Teddy and Carrots," by James Otis; chapters v-vi of "The Swordmaker's Son," by William O. Stoddard; "A Christmas White Elephant," by W. A. Wilson, is concluded; "The Magic Turquoise" is by F. H. Lungen; "A Postal-Card Race Around the World," by Christopher Valentine; "The Story of a Life-saving Station," by Teresa A. Brown; "How Denise and Ned Toodles Became Acquainted," by Gabrielle E. Jackson. There are the usual "Jack-in-the-Pulpit," "Riddle-box," etc.

THE ROYAL NATURAL HISTORY. By Richard Lydeker, B.A., F.R.S., F.Z.S. Paper; 8vo; pp. 96. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

The issue of November 1st represents No. 1 of Volume III. Chapter XXIX, which opens the part, is devoted to the natural history of whales, no less than eight of the whalebone variety being described.

Chapter XXX is devoted to the toothed whales, chief among which is the sperm variety; also are delineated the bottle-nosed, lesser sperm, beaked and fossil forms of whales. Next to these come the dolphins, porpoises, narwhals, white whale (so-called), grampus, the killer, and black fish.

Chapter XXXI is devoted to the rodents, and herein are described forty forms of squirrel, including twenty peculiar to the East Indian Peninsula, and the chipmunks. Then follow the gophers, various species of marmots, flying squirrels, pigmy squirrels, Sewellels, and European and American beavers.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

Contents for January: "Winchester Cathedral," by T. E. Champion; "Ajax and Hamlet," by W. B. L. Howell; "Fall of Prices, and the Effect on Canada," by J. B. Peat; "Two Beauties of the Backwoods," by C. C.

Farr; "Sir Mackenzie Bowell, Premier of Canada," by J. L. Payne; "Honorable Wilfrid Laurier," by James A. Barron; "Hockey in the North-West," by H. J. Woodside; "The Alaska Boundary," by R. E. Gosnell; "Colonial Clubs," by Ernest Heaton; "Canada's Call to the Empire," by Colonel Howard Vincent; "Formation of a Sphinx," by Wyndom Browne; "Joey Mason," by Constance McLeod; "Castle St. Louis," by J. M. Le Moine; "Our Boys and their Reading," by the Editor; "Our Girls and their Reading," by Madge Merton; "Current Thoughts," by the Editor; "Books and Authors;" "Idle Moments."

DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing Co., New York.

The January issue presents a "Scheme for Decorating a House," with illustrations for the first and second floor plans, and designs for draping for triple windows, parlor, dining-room windows, and cozy corner on stair-landing. Also "Window Screens in Metal Work" in three designs; "Ladies' Luncheon;" "Art Metal Enrichments for Furniture," etc. There are "Three Designs for Panels for Furniture," by Sadakichi Hartmann; "Interiors in the Oriental Styles"—East Indian and Japanese; "Novelties Found in the Shops;" "Furniture of Byzantine Style," illustrated; "The Nude in Art"—a decorative panel photographed from life, by Sarony. There are the usual "Decorative Notes," "Notes on Pottery, Porcelain and Glass," and "Wall Decorations."

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 20 cents; \$2.00 per year. The Monthly Illustrator Publishing Co., New York.

The principal contents for January, 1896, are: "My Pet Subject," by Arthur Hoeber; "A Dresden Painter," by C. Sandvoss; "The Duty of Government," by Ruth Everett; "From Cuxhaven to Constantinople," by C. W. Allers; "The Rector of Radbourne," by Henry Mann; "Tilda's Eighteenth Birthday," by Ann E. Thomas; "An Accepted Story," by Grace S. Brown; "Robert Burns," by Henry Mann; "The Pottery of the North American Indians," by W. J. Hoffman, M.D. There are the usual departments.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

"Should Cleveland Have a Third Term?" in the January number, is by M. D. Harter; J. F. Rowbotham writes of "The Origin of the Opera;" "Sainte Anne D'Auray" is by

Henry Haynie; "The Spoiler in Florence," by Bernard Morgan; "Richard Olney," by M. E. Hennessy; "Anna Bell," by K. E. Megee; "The Carcass and the Vultures," by S. M. Miller; "An Atlantic Cable Station," by John H. Wilson; "The Mound-builders of America," III, by Marquis de Nadaillac; "A Winter's Tale" completes the number.

THE MONIST. Price, 50 cents; \$2.00 per year. The Open Court Publishing Co., Chicago.

The contents of the January number of this quarterly magazine are: "On the Part Played by Accident in Invention and Discovery," by Professor Ernst Mach; "Pathological Pleasures and Pains," by Professor Th. Ribot; "Chinese Philosophy," by the Editor; "Germinal Selection," by Professor August Weismann; "On the Nature of Mathematical Knowledge," by Professor H. Schubert; book reviews, etc.

THE YOUTH'S COMPANION. Volume LXIX. Cloth; royal quarto; pp. 800. Perry Mason & Co., Boston.

This is a bound copy of this well known serial, which during the year 1895 gave more and more varied attractions to its readers than all the magazines in the United States put together. It is in fact a treasure-house of practical information and general literature. Nothing in which the world is generally interested, whether in literature, science, art, or politics, is neglected. Thus the *Youth's Companion* is not only by all odds the best complete juvenile paper published in the world, but the best *family paper*. We may add that experience has shown that it is in greater demand by adults than by adolescents. No other publication gives such careful, definite information as is to be found in its editorials—information that is not in any way biased. Again, no other periodical is in every way so cleanly and healthy, since no objectionable feature of any kind has ever found place in its columns. The corps of contributors includes the best and brightest names in foreign and American literature, and the variety of sketches, poems, puzzles, etc., could not by any possibility be excelled. In mechanical excellence the standard of the publication is equally high; its paper and typography are of the best, and the illustrations are by artists who have made the reputation of the high-class magazines. The special Holiday Numbers are always gems of the art pictorial. The great mystery is, how so valuable a publication can be issued at the exceedingly low price of \$1.75 per year. This is answered in part at least by the fact

that its circulation greatly exceeds that of any other periodical, daily, weekly, or monthly, in North America.

The prospectus for 1896 announces an unusual array of attractions: a number of serials, a wealth of short stories, numerous sketches, adventures, scientific and home articles are promised. Notable features will be articles by three Cabinet Ministers; by the Princess Louise, daughter of Queen Victoria; by the Lord Chief Justice of England; by four Admirals; by Speaker Reed and Justin McCarthy; by Major-General Nelson A. Miles; by Andrew Carnegie, Frank Stockton, and others.

BOG-MYRTLE AND PEAT. By S. R. Crockett. Cloth; 12mo; pp. 389. Price, \$1.50. D. Appleton & Co., New York.

This is another volume by that most delightful of authors, the modern Wizard of the North. It is a series of tales chiefly of Galloway, Scotland—the region where most of Mr. Crockett's scenes are laid—gathered from the years 1886 to 1895. Like all of this author's stories, these are intensely interesting and have more or less of a historical bearing. The volume opens with the ballad of "Kenmure," by Andrew Lang; then follows the division into books, five in number, besides an epilogue in praise of Galloway.

Book First is devoted to adventures of "The Minister of Dour;" "A Cry Across the Black Waters;" "Saint Lucy of the Eyes;" "Under the Red Terror;" "The Case of John Arniston's Conscience;" and "The Glistening Beaches."

Book Second deals with intimacies—"The Last Anderson of Deeside;" "A Scottish Sabbath Day;" "The Courtship of Tammoek Thackanraip;" "The Old Tory;" "The Great Right-of-way Case;" "Dominie Grier;" "The Prodigal Daughter."

Book Third deals with histories—"Fenwick Major's Little 'un;" "Mac's Enteric Fever;" "The Colleging of Simeon Gleg;" "Kit Kennedy, Ne'er-do-weel;" "The Back o' Beyond;" "North to the Arctic."

Book Fourth deals with idylls—"Across the March Dyke;" "A Finished Young Lady;" "The Little Lame Angel."

Book Fifth is a collection of tales of the kirk—"The Minister Emeritus;" "A Minister's Day;" "The Minister's Loon;" "The Biography of an 'Inefficient;" "John;" "Euroclydon of the Red Head;" "The Cairn-Edward Kirk Militant."

The epilogue gives glimpses of "Night in the Galloway Woods;" "Birds at Night;" "The Coming of the Dawn;" "Flood-tide of Night;" "Way for the Sun;" "The Early

Bird;" "Full Chorus;" "The Butcher's Boy of the Woods;" and "The Dust of Battle."

As a whole the volume is a most delightful one—one that will be laid down with regret until the last word has been absorbed.

THE BIG BOW MYSTERY. By I. Zangwill. Paper; 16mo; pp. 243. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 219 of the well known Globe Library, and is in a sense a "detective" story. A gentleman is found dead with his throat cut, in a room in which the windows and doors were fastened from the inside, and the question arises whether it was suicide or murder. There are different detective theories and clues followed up, with the result that an innocent man is condemned, when the real truth is admitted by one of the detectives—retired—who confesses to the murder, which was the result of an insane desire to commit a crime that could not be detected. By giving the man a narcotic he caused him to sleep late in the morning, when his landlady imagined murder, since she was unable to awaken him; the detective is then called in, bursts open the door and finds the victim sleeping quietly, but cries out "He is murdered," whereupon the landlady accepts such as a fact and rushes out, when he proceeds to cut the individual's throat and quietly retire. The sole motive for the crime is, as stated by the ex-detective, to show there can be a "science" in criminality.

LECTURES ON APPENDICITIS. By Robert Morris, A.M., M.D. Cloth; 8vo; pp. 163. G. P. Putnam's Sons, New York.

This book is so thoroughly practical that it must be commended to those who wish to acquire an exact knowledge of the latest methods in the treatment of appendicitis. The first part deals with Preparation of Surgeon and Patient; the second with the Appendix itself; the third with Appendicitis, and the fourth with the Medical Treatment thereof. The fifth part deals with Various Solvents of Gall-stones; Influence of Removing any of the Embryonic Vitelline Duct; Eczematoid Inflammation of Navel; Hernia Operation; Experimental Production of Ileal Intussusception with Carbonate of Sodium; The Reasons why Patients Recover from Intestinal Tubercles; Prevention of Peritoneal Adhesions; Palpation of the Kidney; Abnormal Disorders after Laparotomy; Addition to McGuire's Operation for Suprapubic Urethra; The Drainage Wick and Endoscopic Tubes for Direct Inspection of Bladder and Uterus.

THE CHARAKA-SAMHITA. By Avinash Chandra Kaviratna Kavarija. Paper; royal 8vo. Price, £3 per year. M. Audit, 200 Cornwallis Street, Calcutta.

We have before reviewed fasciculi of this work, which is a translation of ancient Sanskrit medical authors. The thirteenth number, before us, is especially interesting, as it contains the completion of chapter XXVII devoted to the "twelve groups of food and drink." Chapter XXVIII deals more specifically with the problems of nourishment and the purposes it serves when introduced into the economy, and how the body obtains its growth; the argument is that health and disease are largely and respectively due to wholesome and unwholesome food and drink. There are also enumerated those maladies which arise from gases, bile, and phlegm in the body. The twenty-ninth chapter points out the essentials to constitute a good physician; then gives a summary of the contents of previous chapters. The observations made by the ancient Oriental authors would appear applicable to the majority of nineteenth-century charlatans.

SEVENTH ANNUAL REPORT OF THE BUREAU OF ETHNOLOGY TO THE SECRETARY OF THE SMITHSONIAN INSTITUTE. By J. W. Powell. Cloth; imperial 8vo; pp. 410. Government Printing Office, Washington.

This volume continues the work begun so long since by the Bureau of Ethnology. The most notable contributions are: "Indian Linguistic Families of America North of Mexico," by J. W. Powell; "Midewiwin, or Grand Medical Society of the Ojibway," by W. J. Hoffman—in this a very complete description is given of the different degrees of this sacred Society, of Indian jugglery and of paint decorations. "The Sacred Formulas of the Cherokees," by James J. Mooney, also deals with Indian medicine, and there is given considerable information about the belief in witchcraft tabu, and the virtues of the different plants and herbs.

DIPHTHERIA AND ITS ASSOCIATES. By Lennox Browne, F.R.C.S. (Ed.). Cloth; large imperial 8vo; pp. 272. Price, \$5.00. J. B. Lippincott Co., Philadelphia.

This is the most complete work upon this topic that has ever been offered the medical profession, and possesses especial value in that it is abundantly illustrated with colored plates taken from absolute cases and delineated by the pencil and brush of the author himself.

While the work claims to be only an essay based merely on a course of lectures, it is

nevertheless a complete and systematic work, and the latest views on each separate branch of this vast subject have been embodied.

The medical profession is deeply indebted to Doctor Browne for this magnificent volume.

THE MEDICAL NEWS VISITING LIST FOR 1896. Weekly, for 30 patients; monthly, for 120 patients per month; perpetual, for 60 patients weekly. Each style in wallet-shaped book, with pocket and pencil. Seal grain leather, \$1.25. Lea Brothers & Company, Philadelphia.

THE MEDICAL RECORD VISITING LIST FOR 1896. New revised edition, with calendar, tables of doses, tables of equivalents, directions for emergencies, antiseptics, disinfection, special memoranda, cash account, etc. Thirty and sixty patients per week. Black or red morocco leather, \$1.25 and \$1.50. William Wood & Company, New York.

These visiting lists are well known to physicians, and both serve an excellent purpose. Some may prefer one, some the other, but both are arranged on a similar plan, and contain, in addition to pages devoted to accounts, much condensed information.

PRECIS DE CLINIQUE THÉRAPEUTIQUE. Par le Docteur A. F. Plicque. Cloth; 12mo; pp. 592. G. Steinheil, Paris.

Realizing that many contributions have been made of late years to our knowledge, the author has ransacked literature to accumulate new therapeutic information. Part I is devoted to the Management of Infectious Diseases; Part II, to Diseases of Nutrition; Part III, to Diseases of the Digestive Apparatus; Part IV, Diseases of Nervous System; Part V, Heart Maladies; Part VI, Renal Diseases; Part VII, Diseases of the Respiratory Passages. In addition are presented thirty-seven pages of formulas.

A MANUAL OF SYPHILIS AND THE VENEREAL DISEASES. By J. M. Hyde, A.M., M.D., and F. H. Montgomery. Cloth; 12mo; pp. 618. Price, \$2.50. W. B. Saunders, Philadelphia.

This manual, as declared by its authors, has been "prepared to meet the special needs of the student and of the professional rather than the expert." It aims to supply in compendium form practical facts connected with the study and treatment of specific diseases. The illustrations are of a very superior character, and include a number of chromo-lithographs.

THE LITTLE BOY WHO LIVED ON A HILL. By Annie Laurie. Fancy boards; small quarto; pp. 80. William Doxey, San Francisco.

The author adds, this is "a story for little tykes." It is certainly a very well got-

ten up book for little children, being printed in large plain type with attractive illustrations. It will prove a most interesting and delightful gift for any child under six years of age. It is much better written and in much better style than the general run of children's books.

ON MEMORY AND THE SPECIFIC ENERGIES OF THE NERVOUS SYSTEM. By Professor Ewald Hering. Paper; 12mo; pp. 50. Price, 15 cents. Open Court Publishing Co., Chicago.

This is No. 16 of the Religion of Science Library. It is an address recently delivered before the Imperial Academy of Sciences at Vienna, and treats of memory as a general function of organized matter. The argument is well worthy of perusal, and will prove doubly interesting to alienists and neurologists.

PRINCIPLES OF SURGERY. By Nicholas Senn, M.D., Ph.D., LL.D. Cloth; 8vo; pp. 656. Price, \$4.50. The F. A. Davis Co., Philadelphia.

We have before had occasion to review this volume. That it has met with success is evidenced by the fact that within five years a second edition was called for. The volume has been revised according to the views of its author, and moreover presents five colored plates and 178 wood-cuts.

DELICATE, BACKWARD, PUNY AND STUNTED CHILDREN. By J. Compton Burnett, M.D. Cloth; 16mo; pp. 164. Price, \$1.00. Bœricke & Tafel. Philadelphia. 1896.

This deals with developmental defects and physical, mental and moral peculiarities, considered as ailments amenable to treatment by medicines; and coming, as it does, from a noted London practitioner, will command especial attention.

VADE MECUM DE PRACTICIEN. Par le Docteur Fernand Roux. Paper; 12mo; pp. 390. G. Steinheil, Paris.

As its name indicates, this volume presents a summary of the data for diagnosing and treating the various internal diseases, in alphabetical order. The descriptions are terse, and the lines of therapeutics fairly complete.

A MANUAL OF THE PRACTICE OF MEDICINE. By George R. Lockwood, M.D. Cloth; 12mo; pp. 935. Price, \$2.50. W. B. Saunders, Philadelphia.

This is an attempt, based upon the classification of Osler, to present in manual form the essential facts and principles of medical practice. There are seventy-five illustrations and seventy-two full-page colored plates.

Therapeutic Brevities.

Old Native Remedies.—Doctor Henry S. Purdon, of Belfast, Ireland, in the *Dublin Journal of Medical Science*, states that in the Belfast vegetable market there is a stall presided over by a herbalist, and that many Belfast citizens still prefer the advice and treatment of this man to that of the registered and qualified physicians. Doctor Purdon makes this fact the text of some remarks upon the value of some of the vegetable remedies that he found at the herbalist's stall, and that are still popular among the people.

Saint-John's-wort is a herb that is recognized by its yellow flower, and is commonly called the "Rose of Sharon." This was formerly used internally in the form of a decoction for colic and gastric disorders, and also for ague; locally, the leaves were often made into an ointment with lard and used as a dressing for wounds. The *Calamus aromaticus*, or sweet-flag, was once strongly recommended by Doctor Graves as a sheet-anchor in malaria, in doses of from twenty to sixty grains. The seed of the common carrot is still largely used as a carminative and stimulant, while the carrot poultice is popular as an application in ulcers. The scarlet *pimpernel*, called also the shepherd's-waterglass, is still used in some places as a remedy for chronic or muscular rheumatism. One of the more popular remedies, and one which we find used in this country, is the mountain-sage; decoctions of this are given to promote perspiration and to cure colds and bronchial troubles. Doctor Purdon says, with a certain amount of *naïveté*, that tansy is still largely grown in cottage gardens, and he noticed it on stall in the market, "it being considered an emmenagogue of much power and largely used by herbalists." Yarrow is used to a great extent by the poorer class, as an aromatic tonic, and it was formerly given in urethritis. Couch-grass, *Triticum repens*, or dog-grass, is one of the most useful of the herb remedies, and still popular in modern hospitals, as well as in country districts. Walnut leaves are sold, to be used in an infusion, internally and externally, for scrofulous affections,—the older physicians thought that the walnut had a singular power of healing foul ulcers and sores (doubtless due to the contained tannin).

A survey of the drugs just mentioned, and their alleged properties, does not give one a very high opinion of the powers of the herbalist. The fact is, that the day of teas and decoctions and infusions and old-woman's

remedies of that character is gone by. While we still have some powerful drugs, such as foxglove, among domestic remedies, the vast majority of the herbs sold for various disorders are of slight potency. Used, as they often are, in the form of hot teas and infusions, they have some value perhaps as stimulants and diuretics, but this value is really very slight. The elder novelists who constructed romances in which some wonderful physician or mysterious witch produced an extraordinary cure by the use of some secret herb, gathered by the light of the moon, would now find their occupation gone, if they conformed their tales to any degree of reason and probability. The great secrets of the modern medical art, so far as drugs are concerned, have been brought out by the chemist and physiologist rather than discovered by the botanist or herbalist.—*Medical Record*.

Chloroform in Internal Medicine.—Practitioners are so apt to regard chloroform as an anæsthetic purely, that its value as an internal medicament is overlooked. One of its most important applications is internally for the relief of pain, either in chest or abdomen, the latter yielding most readily to its influence; particularly is this the case when it is of a gripping character, due to irritability of unstriated muscular tissue in the wall of the intestine, to the presence of irritating foods, or to accumulation of large quantities of flatus. Here twenty to forty drops of chloroform spirits in two tablespoonfuls of water (with, perhaps, ten to twenty drops of spirit of camphor added) is one of the very best of remedies. Chloroform administered internally not only tends to relieve pain, but acts as a most powerful antiseptic. It is a well recognized fact that many volatile substances exercise considerable power in checking all forms of watery diarrhœa, and where pain in the abdomen is associated with liquid movements chloroform is of marked utility. It is also valuable for the relief of pain due to nervous disturbance, such, for example, as in ordinary neuralgia of the stomach or true gastralgia. In obstinate vomiting, two to five drops of pure chloroform will often act advantageously, especially when the vomiting is due to ingestion of bad food, or food that has undergone some decomposition process. In the vomiting of pregnancy it often relieves when all other remedies fail.—WALTERS.

Cocaine in Urethral Surgery.—Any one having much urethral surgery has noticed in some patients extreme shock on passing an

instrument into the urethral canal—shock that is increased on passing a urethrotome, even though the cutting is very slight and no pain experienced. I have used injections of cocaine in the urethra hundreds of times, but have never but once observed any symptoms which I could absolutely lay to the drug. I have, however, never but once used a ten-per-cent. solution. Two cubic centimeters of a two-per-cent. solution is amply strong enough for the relief of pain in deep urethral operations, while in cases of internal urethrotomy of the distal end of the penile urethra not deeper than three inches I use a four-per-cent. solution. In both cases the strength of the solution is ample to completely anæsthetize. The solution should not remain in the deep urethra longer than seven minutes at the utmost—usually five minutes is enough,—while in the distal penile portion it will require seven to ten minutes. It should be seen that the urethra is completely emptied of the cocaine solution, by “stripping” it, so that there is no further absorption. By observing these simple rules, and by using weak solutions, I have never encountered or seen any alarming or poisoning symptoms from the use of cocaine, save on the occasion when the ten-per-cent. solution was employed.—W. H. DUKEMAN, in *New York Medical Journal*.

Cardiac Insufficiency.—It is the liver among all organs, next to the lung at least, that feels an excess of blood in the venous system. Engorgement of the portal circulation is present almost always in every case of heart disease. It is largely for this reason that mercurials are of the value that they are in heart disease. And if I have had any special success in the treatment of this class of cases, it is because I have recognized the value of mercurials. Mercurial purges and corrosive sublimate given in long-continued small doses are of the greatest importance. The fiftieth of a grain, or the sixtieth, or even the one-hundredth of a grain, of corrosive sublimate, given with the tincture of the chloride of iron, will sometimes effect almost a revolution, aiding your true heart tonics in the most remarkable manner; aiding, so to speak, in the digestion and absorption of the medicine.—PROFESSOR H. C. WOOD, in *Atlanta Medical and Surgical Journal*.

Acute Articular Rheumatism.—Every physician is familiar with the appearance of a rheumatic joint—red, puffed, and glistening; the difficult and tedious task of reducing a rheumatic joint to its natural size and util-

ity is also well known by most practitioners. Ice-water, properly employed, is one of the most valuable of all methods in the treatment of a highly inflamed rheumatic joint, but to get satisfactory results the joint must be bathed regularly and systematically. In a very recent case the badly swollen knee was bathed in ice water for five minutes once every hour, and thoroughly rubbed afterwards; at the expiration of one week the joint had almost returned to its natural size. The application of ice-water is much more pleasant and agreeable to the patient than liniments, flannels, stupes, etc. Cold water acts as a sedative and antiphlogistic to local inflammations.—*Charlotte Medical Journal*.

Sulphate of Duboisine.—This drug, long known and used as a mydriatic, has recently been employed as a remedy in nervous diseases. It is a good sedative and hypnotic in cases of psycho-motor exaltation and in cases of elevated reflex irritability, but must always be given hypodermatically. In doses of $\frac{1}{10}$ — $\frac{1}{8}$ grain it is a quick and sure sedative, and frequently a hypnotic; in from ten to twenty minutes the patient will experience a sensation of dryness in the throat—vertigo,—and in as many more minutes becomes quiet and will sleep for two to six hours. It frequently fails as a hypnotic where there is an extreme maniacal condition.

Albertoni has had the best of results with duboisine in hystero-epilepsy, Henry in psychical agitation, and others speak favorably of it in acute mania, periodic mania, and progressive paralysis.—*Kansas Medical Journal*.

Subcutaneous Treatment of Abscess.—Abscesses frequently form at a point where the scar following free incision is very objectionable. With chronic or “cold” abscesses the method of aspirating and injecting an antiseptic solution has long been practiced. Recently Doctor Riechaud, of Bordeaux, adopted this procedure with success in acute abscess; and instead of the time-honored free incision of the most dependent part, he aspirates, after which a solution of carbolic acid, one to twenty, or of ten-per-cent. iodoform emulsion, is injected. This method has been attended with marked success, and its advantages are less pain, more rapid healing, and no traces of scar.—*Medical Herald*.

Phagedenic Chancre.—Doctor Braatz warmly recommends treating phagedenic chancres with topical applications of cupric sulphate.

The ulcer is cocainized with a ten-per-cent. solution, the undermined edges trimmed away, and then cauterized with a one-to-five solution of the sulphate; compresses are afterwards applied, wet with a one-to-5000 solution, and at first renewed three times daily, later but once a day, and covered with a strip of rubber protective. As the pain of cauterization often continues some time after the cocaine has ceased to act, a morphine injection may be given either before or after. On account of the obstinate character of the affection the cauterization may be required to be repeated several times.—*Centralblatt für Chirurgie*.

Spasmodic Croup.—I use balsam of copaiba in doses of fifteen to twenty drops, at bedtime, for a child two or three years old, or immediately following the first hoarse inspiration or cough; it is preferably given in a capsule; in emergency, give in sugar or molasses. This gives prompt relief. If the attack is severe, the balsam is given, then the patient is submitted to heat by throwing a shawl over the heads of nurse and child as well as over the tea-kettle or other means of generating the steam. Keep the patient protected, and give similar and smaller doses for two or three evenings, upon retiring, and, if thought best, at intervals during waking hours.—DOCTOR C. M. FENN, in *Journal of American Medical Association*.

Treatment of Warts.—Simple cutting off or severe cauterization of warts never cures or prevents their return, but the trouble may be readily relieved by internal medication in most instances. Good results have been obtained from taking ten drops of the tincture of iodine thrice daily, but as a rule the best effects accrue from Fowler's solution, two drops thrice daily (in children, half a drop thrice daily), slightly increasing the dose every week. The warts crumble to pieces and disappear, especially when washing and drying the hands, so that the skin looks normal after two or three weeks. Relapses have never been observed.—*Medical Herald*.

Baptisia in Typhoid.—Wild indigo is a stimulant antiseptic especially useful in typhoid conditions. In typhoid pneumonia with high fever, capillary circulation, frequent and soft pulse, high temperature with cool extremities, quick and oppressed respiration, it is of marked benefit; it is also of unusual utility where there is either muco-purulent or prune-juice expectoration; likewise in full abdomen

with diarrhoea and dull purplish or bluish discoloration of membrane and skin.

Locally it is decidedly beneficial in catarrhal conditions of the throat, and in all ulcerated processes of the same, including chronic nasal catarrh, pharyngitis, and tonsillitis.—*Gleaner*.

Treatment of Severe Vomiting.—Doctor C. L. Greene claims to have obtained good results in uncontrollable vomiting by intubation of the larynx. His theory is that unless the glottis is closed so as to fix the diaphragm, vomiting is not possible in the adult. To prevent the necessary fixation of the diaphragm, a tube is placed in the larynx. This permits the free ingress and egress of air, and obviates the spasmodic closure of the glottis. When abdominal muscles contract, the stomach is pressed against the diaphragm; this yields, and the contents of the stomach are not ejected.—*Canadian Medical Review*.

Alcohol in Fevers.—If the tongue becomes dry, discontinue alcohol; if moist, the drug is doing good. If the pulse becomes quicker, harm is being done, and the contrary if slower. If the skin becomes more moist, the antipyretic effect of alcohol is obtained, and again good is being done. If the breathing becomes easier, continue the drug. The effects of alcohol should be watched with even more care and discrimination than other drugs. At times a most important remedy, it is often given with such carelessness as to be productive of positive harm, and even death.—ARMSTRONG.

Pneumonia.—One food of which patients seldom tire during the whole course of the disease, is ice-cream. It can be flavored to suit the taste, is highly nutritious, takes the place of ice or water, cools the stomach, allows better digestion, and helps to reduce the temperature. If, however, the thirst is intense, there is nothing which will relieve it better than to allow the patient to suck a little juice from a piece of lemon every fifteen to thirty minutes; this not only quenches the thirst, but also puts the mouth in excellent condition for food.—*New York Medical Times*.

Whooping-Cough.—*Thymus serpyllum* is a specific for pertussis, and acts in any stage of the disease; it is also a nerve sedative and gastric stimulant. It is perfectly harmless in doses as large as a teaspoonful of the tinc-

ture for a child of eight years, and its action is fully established in twenty-four hours and completed in five days.

The indications are that there will be no recurrence subsequently, at least not more often than in cases which run the full course.—DOCTOR SIDNEY B. STRALEY, in *American Doctor*.

Shock.—In case of shock, a hypodermatic injection of one-twentieth grain of strychnine should be immediately administered, and repeated every half-hour until three doses are given, then every four hours until the patient recovers from the shock. Recovery at any moment is, of course, the signal for discontinuing the strychnine. In chloroform narcosis an injection is given immediately prior to the administration of the anæsthetic, and the same rules followed as in the case of shock.

Potassium Iodide in Suspicious Laryngeal Diseases.—Good effects are frequently produced by the exhibition of potassium iodide in small doses in anomalous throat affections simulating syphilis. Often in such cases, especially when the tonsils seem to be the foci of the disease, ten-drop doses of a saturated solution, three times daily, will produce marked beneficial results. But in all such it is well to examine the pharyngo-nasal cavity for the origin of the trouble.—DOCTOR HILL, in *Medical Standard*.

Croupous Pneumonia.—Digitalis is one of our most valuable therapeutic agents. It acts favorably on the heart, lungs, and blood; used in large doses it shortens the course of the disease—is markedly useful in increasing the leucocytes, especially by favoring polynucleation. The employment of cold water in connection with the digitalis treatment is very useful, and is a further means of promoting hyper leucocytosis.—DOCTOR NAGELI-AKERBLOM, in *Centralblatt für Innere Medicin*.

Geranium Maculatum as a Styptic.—When a bad case of menorrhagia, hæmatemesis, hæmoptysis, hæmaturia renalis, or hæmorrhage from almost any organ of the body, presents, give a teaspoonful of fluid extract *Geranium maculatum* every hour, for a few doses, then less frequently until the bleeding ceases or is lessened, as the case may be. In epistaxis, injecting some of the fluid into the nostril (one part to four of water) is very efficacious.—*Medical Exchange*.

Cocaine in Dentistry.—I use cocaine very freely hypodermatically for the painless extraction of teeth, and never have alarming symptoms from P. D. & Co.'s or Merck's cocaine, hence I use these altogether. In my opinion the danger is not from the cocaine, but from impurities in the article used. As I understand it, it is very difficult to make an absolutely pure article, and many fail in so doing.—DOCTOR J. A. POLLARD, in *Medical World*.

Euthymol.—In the treatment of neurasthenia and other functional nervous diseases, Euthymol in teaspoonful doses an hour and a half after meals, given either plain, in water, or combined with hydrochloric acid and strychnine, if desired, will be found an invaluable remedy. It prevents vertigo and dizziness, which are often dependent upon the products of putrefaction in the *primæ viæ*.—*Exchange*.

To Remove "Moth" Patches.—

- R Chloride of ammonium, 2 drachms.
- Muriatic acid, 3 drachms.
- Glycerin, 14 drachms.
- Tincture benzoin, 5 drachms.
- Rose-water, to make 6 ounces.

Shake well, and apply night and morning by means of a camel-hair pencil or a feather.

—*Medical Summary*.

Chronic Pharyngitis.—

- R Iodine, 6 grains.
- Potassium iodide, 12 grains.
- Menthol, 1 drachm.
- Glycerin, 1 drachm.

Apply with a camel-hair brush twice or thrice daily.

—*Clinical Record*.

Tetanus.—A case of tetanus is reported as having been cured by hypodermatic injections of solution of carbolic acid, two per cent. Twelve drops were injected every three hours until twenty-eight had been given. The recovery was complete in every particular.—*Journal of Practical Medicine*.

Nasal Catarrh.—In cases of chronic nasal catarrh where the mucous membrane is congested and irritable, a solution of equal parts of distilled extract of witch hazel and water, sprayed in the nose, often does very well, but first the nasal cavities must be well cleaned.—HARE.

Medical Progress.

LUXATIO PENIS.—Doctor L. Baumgarten, of Buda-pest, in the *Deutsche Medicinische Wochenschrift* alludes to the fact that luxation of the penis is one of the rarest but most important injuries of that organ, and records a case in which the accident happened at the ritual of circumcision in infancy, whilst the reduction of the luxation was not effected until eleven years later. The child's penis had disappeared, as stated, when he was undergoing circumcision at the hands of the constituted official. The primary difficulty in micturition seems to have been at once overcome, but when the child was six months old he was taken to a medical man who succeeded in bringing the glans penis into view. It disappeared again, however, within the course of the day, and the father was counseled to wait until his son was older and the parts more fully developed. From time to time a swelling would appear on the right side of the scrotum, evidently marking the site of the luxated organ. When seen by Doctor Baumgarten the penis was not visible, but the scrotum was well developed. Between the mons pubis and the upper margin of the scrotum were a circular scar and rudimentary penal sheath, with a punctiform opening only admitting the smallest-sized sound, which could not be introduced into the bladder. On palpation a cylindrical body could be felt beneath the skin between the scrotum and right thigh, the lower end of which was mobile and shaped like the glans penis. During urination a small swelling appeared in the same region, evidently a kind of accessory pouch between the urethra and the external orifice above mentioned. In the operation which Doctor Baumgarten performed to liberate the penis, he first laid open this pouch and was able to draw out the glans and neighboring part of the organ, the rest requiring to be detached by the knife owing to adhesions. The formation of a cutaneous covering to the exposed posterior part of the penis required a plastic operation, which was successfully accomplished. Doctor Baumgarten describes the method pursued in the ritual of circumcision, and enumerates the accidents that have been known to follow it, but this is the first case known to him in which luxation of the penis has occurred. He also recounts the facts of five other cases of luxatio penis that have been put on record, in each case due to severe injury, and in each an operation was performed to restore the organ to its normal site.—*The Lancet* (London).

EVIL RESULTS OF NASAL APPLICATIONS.—Otitis media following the nasal douche may be avoided by attention to the following: The douche must not be at too high pressure, nor too prolonged; no swallowing or coughing to be allowed during application; head to be slightly inclined forward; douche to be administered through the narrower of the two nostrils; nose not to be blown in the ordinary manner just after a douche, but patient to close one nostril while he blows out through the other; fluid used, to be at first lukewarm, then gradually cooler; nozzle of douche not to fit the nostril tightly; cotton wool to be worn in the ears after douche. Neuralgia results sometimes from allowing the stream of a douche to impinge on the roof of the nasal cavity; the nozzle of the douche should therefore be either horizontal or pointing downwards. Impairment or even permanent loss of smell may result from the use of too strong solutions of zinc salts or alum. Nasal insufflations less often give rise to trouble, but powders should be used as weak as possible, for the mucous membrane is sometimes very sensitive to the stronger powders,—prolonged lachrymation with swelling of the whole nose, neuralgia of the fifth nerve, and sometimes even membranous rhinitis, may follow. Where chromic acid is applied to the nose, an alkaline douche should be used after the patient has blown the nose thoroughly,—neglect of this has led to severe toxic symptoms due to swallowing of chromic acid. Adhesions between adjoining surfaces after use of caustics or galvano-cautery are to be avoided by application of ointments, and daily breaking down of adhesions,—many nervous disturbances have followed the use of the galvano cautery, for example headache, neuralgia, asthma, and in several cases more serious and even fatal results, especially pyæmia and thrombosis of cerebral sinuses. The danger of septic processes is greater in operations on the nose associated with much bleeding—for example, removal of polypi or other growths, correction of septal division, etc. In view of such cases, all instruments used for nasal operations should be sterilized, and the nasal cavities should be irrigated with antiseptic fluids after all operations.—*British Medical Journal*.

ALCOHOLIC NEURITIS IN OLD AGE.—I was consulted by a robust country gentleman of sporting habits and used to an out-of-door life, who had taken stimulants in considerable excess for at least twenty years. Even eighteen years ago his usual daily allowance was half a gallon of beer, a bottle of sherry, and

eight or ten liqueur glasses of "neat" whiskey. His favorite drink was beer, and even in the summer of 1894, although seventy-five years old, he would often consume two quarts, a bottle of sherry, and half a bottle of whiskey in a day. He had had no serious illnesses except broken bones from riding accidents and a fractured humerus at the age of seventy-three from a fall down-stairs one evening after dinner. During the year 1894 his great muscular power became much impaired, and toward the end of the year he began to complain of severe darting pains in the left lower limb. A few weeks after, the hands and feet began to swell rather suddenly, and the skin became thin and glossy, while there were small ecchymoses over it. A similar condition was present on the insteps of both feet, while the calves and thighs were œdematous and the muscles shrunken. The knee-jerk could not be elicited, and the pupils were small and did not react to light. The heart sounds were somewhat feeble, but regular, and there was no sign of dilatation. Without any previous marked change in his symptoms he died suddenly after a few minutes' dyspnoea, about two months after the onset of the symptoms. This I consider was a case of peripheral neuritis. There were several interesting points, such as the advanced age of the patient, the excess of his alcoholic indulgence, and the absence of mental change; the fact also that he was essentially a beer-drinker is interesting, with reference especially to the views of the late Doctor James Ross as to the kind of alcoholic beverage most likely to produce neuritis.—DOCTOR MAUDE, in *Brain*.

THE CRACKED-POT SOUND.—The cracked-pot sound has become an almost pathognomonic symptom of the tuberculous cavity of the apex since the year 1819, when it was described by Laennec. It is known to be produced by deep percussion of the sub-clavicular region in an emaciated subject with the mouth open, and very probably having a spacious tuberculous cavity which is not dried up. In fact, the antero-superior portion of the thorax, better than any other, transmits to the lungs the concussion produced by the percussing finger, and it is there, moreover, that the cavities are usually situated.

Furthermore, if it is not obtained distinctly except when the mouth of the patient is open, it proves there must be, in order to secure it, a propagation of the sonorous waves to the bronchial tubes and to the trachea. The sound is pneumo-broncho-tracheal. In phthi-

sical patients in the third stage the conditions favorable to its production are:

Cavities spacious without being too large: They must be superficial, and their walls slight: They must communicate freely with the bronchial tubes: They must contain a certain quantity of mucus-purulent liquid; it is not necessary that the cavities should contain mucus-purulent secretions—it is sufficient if the secretions exist in the bronchial tubes communicating with the pulmonary cavity.

If the cracked-pot sound signifies practically a tuberculous cavity, this symptom is met with, nevertheless, in several other affections of the thorax.—M. GALLIARD, in *La Médecine Moderne*.

HÆMORRHOIDS.—The Dutch custom-houses of Java shed an important light upon most of the unknown and unstudied natural laws involved in the cause of and relief from hæmorrhoids. In order to perpetuate the high commercial repute of the spices and other products of that island, the government usurps an absolute control in the matter of purchase and sale. Prior to exporting, everything is rigorously inspected. This requires tasting. Knowing that the juices are deleterious, the inspectors never swallow the minutest particle, but immediately eject the sample from the mouth; nevertheless, after a certain length of official service, they become the victims of most aggravated piles. Although no fragment of spice is swallowed, the current of saliva forever bathing the sublingual space, or passing from the mouth to the stomach, carries with it enough of the irritating juices of the spice to disturb and derange the whole alimentary canal. Prolapse of rectum ultimately ensues, with sometimes four or five inches of exposed surface, highly inflamed and intensely sensitive to the touch.

The simple and negative system of relief adopted is to withdraw from duty and to observe a strict abstinence from spice. Without other remedy the patient after some months is able to return to duty, but only to relapse from the same cause after a time. He thus oscillates between health and disease during his entire official existence, which we cannot suppose is distinguished for its longevity.—*Doctor of Hygiene*.

MENSTRUATION IN HOT COUNTRIES.—Joubert insists with Playfair that the influence of climate on the catamenia has been unduly exaggerated. In 3194 cases under observation at Calcutta during the last four

years, including European and rich native women seen in private practice and poorer natives under treatment for various diseases in the Eden Hospital, Joubert found very little difference in the percentages for various ages between the Europeans who had passed their youth in Europe and the women of pure blood born in India; 23.4 per cent. of the former and 25.8 per cent. of the latter began to menstruate when thirteen years old. Hence the climate seems to have no influence on the catamenia of women of the European race. Indeed, the European-born girls showed a larger percentage of menstruation beginning at twelve than the Indian-born Europeans (13.4 per cent. against 10.8). Among the Europeans a difference was at once noticeable, the type approaching that of the natives between twelve and fourteen, but diverging again in the direction of the European type between fourteen and sixteen. Such women are much influenced by native habits. In the non-European natives, Hindus and Mohammedans, but chiefly the former, the greatest percentage of dates of first menstruation occurred at twelve (36 per cent.). Early menstruation is determined in native women by precocious knowledge and too early exposure to sexual excitement.—*British Medical Journal*.

DETECTION OF BLOOD-STAINS IN MEDICO-LEGAL CASES.—The detection and demonstration of blood-spots on rusty iron is made more difficult by the fact that the iron renders it impossible to obtain hæmin crystals. In such cases hydrogen peroxide furnishes a certain test, since if there is the slightest trace of blood the peroxide instantaneously releases oxygen, the minute bubbles of which may be seen with the unaided eye. These bubbles collect on the surface of the drop, which presently, under a magnifying glass, appears quite foamy with them, and looks white, even to the unaided eye. The technique is very simple: A portion of the suspected blood substance—a slight scraping is sufficient—is placed on a glass slip, the back of which is covered with black paper. Cover the suspected material with a drop of weakly alkaline water, let stand for a few minutes or until the substance is softened, then add a drop of peroxide-of-hydrogen solution. If there is the slightest trace of blood present, the globules of oxygen instantaneously appear, and are so characteristic that any confusion with air bubbles is impossible. If the reaction does not occur, it is a certain demonstration of the absence of blood. It is to be added that the appearance of the reac-

tion is not a demonstration that blood is present, as other animal liquids behave in the same manner.—F. GAUTIER, in *Zeitschrift für Analytische Chemie*.

DANGERS OF IODINE LINIMENT.—Many drugs and specific poisons have the power, when introduced into the system, of irritating any or all of the channels of excretion. In this way we get dermatitis, bronchitis, dyspepsia, diarrhoea, nephritis, and so on, in connection with gout, ptomaines, exanthems (such as scarlet fever), and various drugs. Iodine is one of the drugs that seem to be capable of inflaming any of the excretory outlets. Its excretion, when not carried out by the kidneys, gives rise to the interesting group of symptoms known as "iodism;" it has, moreover, actually been detected in the pustules of some forms of iodine rash. For some years I have been on the outlook for iodism where there was distinct evidence of kidney inadequacy. In a case cited by Doctor Robie, iodine liniment induced albuminuria and signs of advanced kidney-disease. My suggestion was that the iodine was absorbed into the circulation by the skin, that it was not excreted by the usual channel, the kidney, and that the severe general subsequent dermatitis was due to an attempt of the skin to throw off the irritant iodine; that the rash was, in fact, caused by excretory irritation.—DOCTOR DAVID WALSH, in *The Lancet* (London).

CAUSES OF PRURITUS ANI.—Among the exciting causes that are local, may be mentioned pediculi, eczema, erythema (in fat people), thread-worms (which are to be found in the radiating folds at the margin of the anus), lack of cleanliness, eczema marginatum (which is most easily cured by rubbing well into the parts night and morning, for a week or so, an ointment containing from ten to thirty grains of chrysophanic acid to the ounce of vaselin), hæmorrhoids, fistula, fissure, etc. Some other causes, reflex or constitutional, are: stone in the bladder, chronic inflammation of deep urethra, stricture of the urethra, pelvic tumors, uterine derangements, functional disorders of the liver, diabetes, constipation, and lastly, but not least, gastrointestinal disorders, especially the form known as atonic dyspepsia, superinduced by smoking, drinking, irregular eating, irregular sleeping—in fact, by irregularity in all the walks of life. The treatment which tends to the best results is a light breakfast, no lunch-

eon, a good dinner, plenty of hot water an hour before and between meals, and following the homely road of correct habits.—*Progress.*

ETHMOIDITIS AS A CAUSE OF INSANITY.—Some years ago Doctor Rumbold called attention to the prevalence of ethmoiditis in many cases of melancholia. Of late the medical journals have contained many corroboratory articles, and numerous cases that have been subjected to intra-nasal operations have been reported as either permanently relieved or greatly benefited. Formerly the drift of the profession was towards treatment by local applications alone; but the desired success not being attained, recourse has been had to surgical interference. The results obtained being so marked, a craze seems to have set in for operating, and many cases are now cauterized, curetted or burred that really need only appropriate local and constitutional treatment. While many brilliant and even startling results have followed operative interference, it is well not to promise or expect too much from such procedures. Always remember that the operation is but *part* of the treatment, and that local and constitutional remedies will have to be used in order that permanent benefit may be derived.—*Journal of Laryngology.*

TRANSMISSION OF SCARLET FEVER.—A child visiting away from home was taken ill with scarlet fever; the friends, remarking that the desquamation was like the casting of a snake-skin, wrote a description and enclosed three pieces for the parents. Six and a half days after receipt of the letter, a baby brother of the first child, living at home, took the disease.

The only other case of transmission of contagion by letter yet reported was published by Sanné. Two persons received a note from a convalescent from scarlet fever, who wrote she was desquamating so freely that she had to brush the fine scales off the note-paper on which she wrote. Some days later both recipients became ill with the disease. Physicians should warn their patients against such dangerous errors.—*Archives of Pediatrics.*

ANTI-RABIC INOCULATION.—Without entering into any discussion of statistics of cures obtained by the "Pasteur Institute"—cures that can always be contested, since it

cannot be proved with certainty that the subject bitten would, in any case, have had hydrophobia—it is only too certain that the anti-rabic inoculations have induced death in many subjects, with special symptoms that have caused such deaths to be designated by the names of paralytic rage or hydrophobia of the laboratory. Without taking part either for or against the anti-rabic theories of Pasteur, one cannot deny that this unfortunate want of success demonstrates that such injections are not absolutely inoffensive.—*Journal de Médecine de Paris.*

SEVERE MANIACAL EXCITEMENT FROM SODIUM SALICYLATE.—A single woman, forty years old, who had been an inmate of an asylum for eighteen months suffering from delusional insanity, received six twenty-grain doses of sodium salicylate at four-hour intervals, to relieve a subacute rheumatism which was principally located in her wrist-joints. She became restless, incoherently talkative, more excited and delirious, using disgusting and immoral expressions, and requiring the constant attention of two nurses. Recovery from these symptoms, after the use of whiskey, milk, and eggs, took place within thirty-six hours.—*Journal of Mental Science.*

EYE-STRAIN A CAUSE OF ANÆMIA.—Doctor W. B. Kreider narrates the case of a fair and apparently healthy young girl, who was compelled to give up all study and work, and developed "what looked very much like pernicious anæmia, with headache, loss of appetite, the happy nature despondent, and neuralgic pains causing sleepless nights." Treatment was useless, until her eyes were fitted with glasses, when her troubles suddenly disappeared. "Surely," says Doctor Kreider, "the science of ophthalmology does not tread a narrow field."—*Homœopathic Recorder.*

EXAMINATION OF VIRGO INTACTA.—Edebohls asserts that the bimanual examination of *virgines intactæ* should always assume the form of a recto-abdominal palpation. There is no need in these cases for a vaginal examination; the finger in the rectum will teach all that is desired to be known concerning the uterus, tubes, and ovaries. The only difficulty to be overcome is that of identifying the cervix; a little practice, however, will enable the practitioner to master this detail.—*Medical Press and Circular.*

The Medical Age.

VOL. XIV.

DETROIT, FEBRUARY 10th, 1896.

No. 3.

Original Articles.

PUERPERAL CONVULSIONS.

BY T. K. HOLMES, M.D.

It is my object to refer briefly to the causes and symptoms of puerperal convulsions, and to present such views of treatment as have been suggested by reading and by the experience of forty-two cases that have come under my care during my professional life. A detailed account of these forty-two cases would be tedious and would not be more instructive than a classified tabular view of them.

The association of albuminuria with this disease has been observed so commonly since Lever, in 1842, called attention to the fact, that its presence in the urine of a pregnant woman justly alarms the obstetrician. Puerperal convulsions do occasionally occur in women whose urine is not albuminous, but so seldom that when a test reveals none no fear of eclampsia is entertained.

According to modern views, puerperal eclampsia is due to urinæmia, which may depend on organic or on functional disease of the kidneys, or upon anything that obstructs the flow of urine through the ureters. While renal insufficiency may be considered as the cause in the vast majority of cases, it would be wrong to underestimate the influence of an unstable nervous system. A few years ago a child ten years old, who had slight lateral deviation of the spine, was being examined for this affection, when, without the infliction of pain or discomfort, a violent convulsion occurred. On another occasion I was removing a pterygium from a young lady's eye; cocaine had rendered the part insensible, but notwithstanding the absence of all pain a violent convulsion was induced. Neither of these patients had renal disease, nor had either of them had a previous fit.

The pain and mental disturbance incident to labor may undoubtedly induce eclamptic attacks in a similar way.

Observation points to four conditions that may produce eclampsia, viz.:

Urinæmia with albuminuria:

Urinæmia without albuminuria:

Local irritation:

Instability of the nervous system.

Two or more of these may exist in the same case, but practically the first and second conditions are those that chiefly concern the accoucheur and claim consideration here.

Every obstetrician must have observed the wide range in mortality in this disease. I have myself seen a woman die in the first fit, and I have seen women recover after having had twenty-five seizures. While the fits were called uræmic, and considered as due to retention of urea in the system, this difference in mortality was inexplicable. Modern research has, however, solved the difficulty, and it is now known that urea is one of the least injurious of the constituents of urine, and in itself never causes convulsions; indeed, it is only especially injurious when deficient, because it is so actively diuretic.

The researches of Bouchard, Ritter, Fitz and Schiffer have shown that normal urine contains seven substances, at least, which when retained in the system through renal inadequacy are capable of producing well marked disturbance. They are:

A diuretic substance (urea):

A narcotic substance:

A substance highly capable of producing convulsions:

A second substance (potash), also a convulsant but in a less degree:

A sialogenous agent:

A substance capable of reducing temperature:

A substance which will cause contraction of the pupil.

TABULAR REPORT OF CASES.

No.	Age.	No. of children.	Months pregnant.	Time under observation.	Prenatal Symptoms.	Urine.	Fits.			Treatment.	Termination.
							Before labor.	After labor.	Total.		
1	23	1	7	None.	Anasarca, nausea, headache.	$\frac{1}{2}$ albumen.	3	0	3	Bleeding, sweating, salines, milk diet. Child born at nine months.	Mother lived, child died.
2	32	1	9	None.	Anasarca, nausea, headache.	$\frac{1}{2}$ albumen.	4	0	4	Salines, sweating, chloroform, forceps.	Both lived.
3	38	6	7	None.	Anasarca, nausea, and impaired sight.	None in bladder.	13	0	13	Bleeding, sweating, chloroform.	Died before delivery.
4	20	1	9	None.	Anasarca, deranged vision, headache.	Complete suppression.	8	0	8	Bleeding, sweating, salines, chloroform.	Both died.
5	18	1	9	None.	Anasarca and nausea.	Solid.	10	0	10	Bleeding, sweating, salines, chloroform, pot. brom. Child alive.	Died.
6	19	1	9	None.	Edema, nausea, headache.	None in bladder.	0	4	4	Sweating. Never conscious after first fit. Child lived.	Both died.
7	36	5	8	None.	Anasarca, nausea.	$\frac{2}{3}$	3	0	3	Sweating, salines, chloroform. Got better till term, when fits recurred.	Both died.
8	34	7	9	None.	Anasarca, headache, nausea.	None in bladder.	0	9	9	Patient died before treatment could be employed.	Mother died, child lived.
9	27	2	9	None.	Anasarca, headache.	$\frac{1}{4}$	0	7	7	Croton oil, bromide, chloral, chloroform.	Both died.
10	30	1	9	None.	Anasarca, headache.	$\frac{1}{4}$	5	0	5	Sweating, pilocarpine, croton oil.	Mother lived, child dead.
11	20	1	9	None.	Anasarca, blindness, complete pallor.	Solid.	1	0	1	Died in first fit while forceps were being used.	Both died.
12	19	1	9	None.	Anasarca, headache, nausea.	$\frac{2}{3}$	10	0	10	Attending physician had thought it hysteria and had given valerian. When called I bled her 24 oz., but she died in next fit in half an hour.	Both lived.
13	18	1	9th	None.	Anasarca, headache, nausea.	$\frac{1}{2}$	2	0	2	Sweating, salines, chloroform, bromide and chloral; labor induced.	Both lived.
14	24	2	8	8 days.	Anasarca, headache, bad vision, nausea.	$\frac{1}{2}$	0	1	1	Sweating, salines and diet failing to relieve symptoms, I induced labor, and fit occurred one-half hour after child was born.	Both lived.
15	21	3	9	2 weeks.	Anasarca, headache, bad vision, nausea.	$\frac{2}{3}$	3	0	3	Attendant knew of albumen, but did nothing till fits came on. Sweating, emmen, salines and chloroform tried. Died three hours after first fit.	Both died.
16	23	1	8	4 days.	Anasarca, vomiting, headache.	$\frac{2}{3}$	0	0	0	Treatment gave no relief, so I induced labor after four days' treatment.	Both lived.
17	36	8	9	None.	Anasarca, vomiting, headache.	$\frac{2}{3}$	2	0	2	Bleeding, sweating, forceps.	Both lived.
18	20	1	9	None.	Anasarca, vomiting, headache.	$\frac{2}{3}$	5	0	5	Croton oil, sweating, forceps. Child dead.	Lived.
19	24	4	9	None.	Anasarca, vomiting, headache.	Solid.	11	0	11	Bleeding, sweating, forceps, jalap.	Both died.
20	10	6	9	None.	Anasarca, blindness, headache.	Bladder empty.	5	0	5	Sweating, morphine, elaterium.	Both died.
21	26	4	9	None.	Headache, nausea.	$\frac{1}{4}$	3	0	3	Salines, chloroform, sweating, bromide and chloral.	Child died, mother lived.
22	18	1	5	None.	Headache.	No albumen.	1	0	1	Sweating, salines, chloral.	Mother lived.
23	26	3	8	4 weeks.	Anasarca, pallor, short breathing.	Urine 1000; no albumen till 2 days before delivery, when $\frac{1}{4}$ developed.	0	0	0	As soon as albumen appeared, nausea, double vision, great restlessness, and pain in head like a nail driven in. Sweating, salines, chloroform, chloral and bromide per rectum; labor induced.	Both lived.
24	17	1	9th	None.	None.	$\frac{1}{4}$	2	1	3	Sweating, salines, chloroform, chloral and bromide.	Child lived, mother died.
25	23	1	9	14 days.	Urine clear of albumen five days before fits.	$\frac{1}{4}$	0	5	5	Patient seemed well and urine normal six days before fits came on, when albumen was present. Sweating, salines, bleeding, chloroform.	Mother died, child lived.

26	1	9	None.	Complete blindness, headache.	$\frac{2}{3}$	1	0	1	Sweating, salines, bromide, forceps.	Both lived.
27	1	9	None.	Headache, nausea.	$\frac{1}{4}$	2	0	0	Morphine, forceps.	Both lived.
28	1	9	None.	Anasarca, nausea, delirium, headache.	$\frac{1}{2}$	1	0	1	Sweating, catharsis, bromide gave some relief, but symptoms grew worse in three days, when labor was induced.	Both lived.
29	2	9	None.	Anasarca, vomiting, headache, dizziness.	$\frac{1}{2}$	3	0	3	Sweating, jalap, chloroform, forceps.	Both lived.
30	2	9	None.	Headache, pallor, vomiting.	$\frac{1}{4}$	2	0	2	Sweating, chloral, bromide, salines; labor induced.	Both lived.
31	2	9	None.	Anasarca, nausea.	$\frac{1}{4}$	4	0	4	Sweating, salines, chloroform, bromide.	Child died, mother lived.
32	3	9	None.	Anasarca, headache, vomiting.	$\frac{1}{2}$	2	1	3	Sweating, salines, enema, forceps.	Both lived.
33	3	9	None.	Anasarca, headache, vomiting.	$\frac{3}{4}$	8	0	8	Chloroform till seventh fit, then sweating, salines, and bleeding.	Both lived.
34	4	9	None.	Anasarca, difficult breathing.	$4\frac{1}{2}$	10	0	10	Croton oil; after eighth fit sweating, salines, bromide.	Both died.
35	2	8	7 days.	Anasarca, bad vision, nausea.	$\frac{3}{4}$	0	0	0	Usual treatment failing, at end of a week I induced labor.	Both lived.
36	4	9	None.	None.	$\frac{1}{2}$	2	0	2	Bleeding, catharsis and sweating enabled her to go to term, when she was safely delivered.	Both lived.
37	1	9	None.	Headache, delirium.	$\frac{1}{4}$	20	5	25	Catharsis had been resorted to before I saw her, when after twenty-two fits I gave bromide, chloral, and chloroform, and induced sweating.	Child died, mother lived.
38	1	9	None.	Anasarca, headache, impaired vision.	Complete suppression.	3	0	3	Chloroform by attendant. Died before I reached house.	Both died.
39	3	8	24 hours.	Anasarca, shortness of breath, headache, pain in back and legs.	$\frac{1}{2}$	1	0	1	Sweating and salines were begun a day before fit, and were continued. After fit, chloroform was used and labor induced.	Both lived.
40	2	8½	None.	Anasarca. Albumen at least two weeks.	Could get none.	1	0	1	The attending physician knew of the albumen two weeks before fit, but did not take any steps beyond giving diuretics. Patient died in first fit.	Both died.
41	4	8	2 weeks.	Anasarca, nausea, weakness.	$\frac{1}{2}$	0	0	0	As usual treatment and diet did not succeed in lessening albumen, labor was induced after two weeks and child was born at 8½ months.	Both lived.
42	4	8	2 weeks.	Anasarca, nausea, headache.	$\frac{1}{2}$	0	0	0	As usual treatment and diet did not succeed in lessening albumen, labor was induced after two weeks and child was born at 8½ months.	Both lived.

The kidneys may be so damaged as to cause retention of any or all of the foregoing, and the violence and fatality of any given case of puerperal convulsions will depend on the kind and quantity of poison retained. These facts are of immense importance, and should never be lost sight of in deciding upon a plan of treatment. The life of a routine practitioner may or may not be a happy one, but it is generally more prolonged than the lives of his patients. The man who always relies on opiates and chloral will save some of his patients by their use, but he will not infrequently overwhelm a patient who is profoundly under the influence of a narcotic manufactured and retained in her own system. Pilocarpine is undoubtedly a useful remedy in some cases, but if given to a woman whose respiratory apparatus is loaded with secretion from the retention in her system of the sialogenous poison, and whose reflexes are dulled, it will almost certainly prove fatal by such an increase in this secretion in the lungs as to produce asphyxia.

What brings about the condition of the kidneys that is the immediate cause of the ailment, is not certain. Pressure of the gravid uterus cannot be a common agent, because convulsions are known to occur early in pregnancy and long before pressure could be a factor in their production; and, moreover, if pressure were a common cause, few women would escape.

The symptoms that precede an attack are generally easily recognized if sought for, and that physician is highly culpable who, having the care of a pregnant woman, neglects to watch for them and to warn his patient of their import and danger. A diminution in the daily quantity of urine voided, or a change in its quality, especially the presence of albumen and the lowering of the specific gravity, should lead to prompt and careful investigation; and if to these there be added œdema, or anasarca with nausea, pain in the head, disturbance of vision, or other nervous phenomena, one may be sure that danger is imminent. Convulsions having come on, other symptoms should be observed, for the treatment should be determined by these. Coma between the convulsions is a grave symptom, and the degree of its profundity is

an index of the danger. Abundant râles indicative of the retention of the sialogenous poison, point clearly to the avoidance of pilocarpine in the treatment. Rapidly recurring fits indicate the abundance and the activity of the convulsant agent which the kidneys have failed to eliminate.

Treatment directed to the prevention of eclampsia is far more likely to reduce the rate of mortality than any plan of checking the convulsions after they have come on. Brief reference to prophylaxis, therefore, is important. If any means could be adopted to enlighten the public as to the danger every pregnant woman incurs in gestation, far fewer cases would be neglected until convulsions set in. A comparatively large number of women think it unnecessary to consult a physician or to engage his services until labor begins, when if convulsions occur treatment is often unavailing. Frequent analysis of the urine, so as to detect renal inadequacy early, should be the constant practice, and on its earliest discovery the patient should be clad in woolen garments and the skin kept in an active condition, warm baths employed, the bowels kept rather loose by saline cathartics, and the diet restricted almost exclusively to milk, fruit, fish, and bread; in any urgent case a purely milk diet is best. In anæmic cases, iron in the form of Basham's mixture is indicated. Water is beneficial and should be taken freely. If notwithstanding these measures the symptoms grow worse, general dropsy appearing and nervous symptoms developing, no time should be lost in inducing labor. If properly done, this is such a safe procedure that no one can be justified in allowing a woman, especially when the child is viable, to remain in danger of so fatal an attack as eclampsia. Even if convulsions have not come on, but the woman's symptoms indicate danger of their occurrence, and treatment just pointed out fails to ameliorate these symptoms, labor should be induced.

In the series of forty-two cases here presented, labor was induced nine times, with the result that all the mothers were saved and the nine children lived. In No. 7, treatment arrested the fits, and the patient progressed favorably for three weeks, when eclampsia recurred, with fatal result to both

mother and child. If danger arise before the seventh month, every effort should be made to prolong gestation until the child is viable before induction of labor is attempted. After convulsions have set in, the treatment should depend on circumstances. If the intellect becomes clear between the attacks, morphine, chloroform or chloral may be used; but if coma be early and profound, morphine should not be given, but the vicarious action of the skin and bowels should be relied on and the fits controlled by chloroform, and possibly chloral may be admissible. Bleeding may be useful in plethoric women, but it has not proved as beneficial in my experience as the literature on the subject led me to expect.

Pilocarpine is an unsafe remedy when the bronchial tubes are loaded with mucus and the reflexes dulled or abolished, because the abundant mucus secreted through its influence is liable to produce asphyxia. In all cases the uterus should be emptied as soon as possible.

To sum up the treatment: A restricted diet, abundance of water, hydragogue cathartics, and sweating by artificial heat—and in some cases by sudorifics—are necessary in all cases and in all stages; chloroform is the most reliable agent for controlling the fits, and should always be used for this purpose; chloral and bromide of potassium are useful, especially where convulsions are frequent and coma not profound; pilocarpine is a strong sudorific, but is inadmissible when the circulation is weak or when the lungs are loaded with mucus; bleeding is of use in plethoric cases; morphine is dangerous when coma is a marked symptom, but is useful in other cases; prompt delivery should always be practiced, labor being induced by artificial means if necessary.

Chatham, Ontario.

ENURESIS AND ITS TREATMENT.

BY DOCTOR MARTIN MENDELSON.

Enuresis comprises every condition in which the urinary bladder is incapable of retaining its contents, even in the absence of special desire to urinate; thus it includes all cases of involuntary discharge of urine, and if the various affections ranged under this head

may be grouped and subdivided into distinct classes it is owing to variety in the provoking cause.

The first important question is: Have anatomical modifications occurred in the urinary reservoir and in its obturating apparatus? A sharp distinction must therefore be drawn between merely functional enuresis and that due to direct pathological changes in the bladder. Diseases of the latter sort, again, may be of such character as to involve substantially the obturating apparatus, or, on the other hand, attack principally the apparatus which serves to expel the urine,—hence may either prevent a complete filling of the bladder, owing to deficient obturation, or may so depress the expulsive power that the ever-filled viscus is no longer capable of receiving the arriving contents, and finally runs over. While enuresis, in the proper sense of the word, is a purely functional affection without anatomical modifications, the various groups of disease marked by an involuntary flow of urine which is simply the expression of some other affection are classed together under the head of incontinence. True incontinence is that observed when the obturating apparatus fails in its function; false or paradoxical incontinence prevails when the weakened bladder-wall is no longer capable of evacuating its contents, and the urine flows off unprompted. In the one case the bladder is always empty; in the other, always full.

Purely functional incontinence may be regarded as distinctly a children's disease; with the arrival of puberty it is wont to vanish.

Many theories have been proposed to explain the development of enuresis. Authorities have invoked as causes not only general dyscrasiæ, scrofula, rachitis, anæmia, and plethora, but also intestinal worms and fissures of the anus, phimosis and organic bladder-troubles, and even brain disease. But the whole process may be more readily and simply explained: In a number of children the obturating apparatus of the bladder is not sufficiently developed and vigorous to offer proper resistance to the promptings of the reflexly irritated detrusors, without the aid of the will power, when there is impulse to urinate. Reflex action is, of course, probable at times. Thus, worms in the bowel, or lasting

and repeated stagnation of fæcal masses, may give rise to congestions toward the pelvis and to similar reflexes, as may also irritations due to masturbation or prevailing phimosis. But these are merely concomitant, not causative, factors.

With respect to remedial measures, the general treatment received by children at home and in school is of the greatest importance. They should be treated considerably, not reprov'd and punished like evil-doers; they should be taught to become regular in urinating; the ingestion of liquids should be so apportioned that the contents of the bladder shall be as light as possible at night, during the school hours, or at any other season when there is not ample opportunity for micturition. In this way the symptoms may be made to disappear. The improvement is often transient—especially when the necessary caution is relaxed. If regulation of liquid-drinking be neglected, the nocturnal enuresis may become aggravated into a diurnal enuresis. As a rule there will be no involuntary voiding of urine when the teacher permits the pupils to leave the room whenever they desire to urinate, or, better still, when the pupils are admonished to satisfy this need at hourly intervals. In the army, bed-wetters are readily cured of their weakness by being awakened every hour by the watch and led to the courtyard.

Treatment is a simple matter to the physician, but involves much detail and care on the part of the patient's family. For only a systematic habituation of the children, an insistence on regularity in the principal function involved, and an orderly mode of life with respect to all the habits, will suppress the troublesome disorder. Where such a rigid *régime* is actually carried out, permanent relief is obtained, even if the symptoms have persisted for years.

Of the utmost importance is the withholding of liquids during the evening; in severe cases such a fiat must be carried out to the letter, interdicting everything fluid after five or six o'clock. The kind of beverage must also be regulated, as well as the quantity; special mischief is often done by giving liquids possessing a certain proportion of alcohol or carbonic acid, the trouble manifesting itself or becoming aggravated when

just such beverages are taken; in this respect I have observed very surprising idiosyncrasies. Certain beverages, perfectly innocent in themselves, may cause a recurrence of the nocturnal enuresis. At all events, for their evening meal the children should receive solid food only, and must void their urine once every two or three hours, and then directly before going to bed. This must be done under supervision every day at the same hour, the attendant seeing to it that the bladder is actually emptied.

But in pronounced and inveterate cases all this will not avail, and further measures must be taken to protect the obturating muscle from too violent demand. The general process followed in the voiding of urine is about as follows: When a certain quantity of urine fills the bladder—a quantity necessarily differing with each individual—the urine entering the neck of the bladder exerts a reflex action on the detrusors and on the muscles of the bladder-wall, the contractions of the latter being subjectively translated into a desire to urinate. This endeavor to expel the urine is opposed by the contractions which the detrusors reflexly excite in the external sphincter of the bladder, its chief obturating muscle, which, as we know, surrounds the neck of the bladder like a ring and cuts it off toward the urethra. The process forms a closed circle; and thus the urine is retained in the bladder until a voluntary relaxation of the sphincter and a voluntary increase in the tension of the detrusors empties it. In enuresis we have to deal with a similar case—only the sphincter fails to resist the impulse of the detrusors. To obtain an equation, therefore, it is first necessary to reduce and if possible suppress the contractions of the detrusors, and this may be most simply accomplished by permitting the gathering urine to reach the internal orifice of the urethra as late as possible.

For this purpose the beds of the children are so arranged that the feet shall lie higher than the head. Then the urine, flowing from the kidneys during the night, first gathers in the upper posterior segment of the bladder, and fills the top before gathering in the bottom. The inclination of the bed may be very markedly increased; no discomfort

seems to be caused thereby, and the sleep does not appear to be disturbed. The results are often brilliant; at times the ailment may thus be made to vanish after a few days, at other times immediately. When, under such treatment, the bed-wetting ceases, it is well to keep the children sleeping in the same position from eight to fourteen days longer. Transition to the usual position should then be gradually made—the feet being permitted to sink a little each night, until in the course of eight to fourteen days the original horizontal position is reached.

Relapses occur very frequently with a return to old habits of life. But often, by removing all strain from the bladder-wall for a longer time and gradually accustoming the latter to its natural stimuli, the obturating apparatus may be made to fulfill its functions regularly so long as the habits remain regular.

A very favorable influence is also exerted by treatment with *Rhus aromatica*, the efficacy of which would almost seem to indicate a direct specific virtue in such conditions. How such benefit is accomplished has not as yet been adequately investigated, but the agent probably reduces the sensibility of the neck of the bladder and thus restrains the reflex stimulation of the detrusors which proceeds from the neck. Ten to fifteen drops of the tincture are given several times a day; in cases of true nocturnal enuresis fifteen drops, once in the afternoon and once in the evening just before going to bed.

A combination of the three measures just outlined has proved the most efficacious treatment at my command, and is successful in the great majority of cases; sometimes relief follows in a few days, even when the cases have been of months' standing. And yet, in specially severe or stubborn cases, other measures must be employed. Of the internal remedies which suggest themselves, belladonna should be mentioned first; ever since Trousseau's emphatic recommendation it has been, and is still, used on a large scale. Its virtue is said to consist in its reduction of excessive sensibility in the detrusors. The initial dose with larger children is one centigramme; with smaller ones, half a centigramme. The agent is administered for a long time, gradually and slowly increasing

the dose several-fold—even to ten times the initial quantity. It is manifest that so powerful an agent—which, besides, must be given for weeks and months—should be dispensed with if practicable. The results are also dubious, although, in cases of failure, success may be achieved by substituting a combination of belladonna with an extract of nuxvomica or with strychnine. Another agent which has been widely used in enuresis is chloral hydrate. This does indeed render good service in some cases, but I do not infer from its efficacy, as others have, that enuresis consists in a convulsion of the detrusors, which the internal sphincter is too feeble to combat, but which is overcome by chloral. Aside from the foregoing agents, which exert a direct action, we have, of course, the auxiliary roborants—quinine, iron, and all the other medicaments which may prove of great general service in anæmic and debilitated children when combined with hygienic and dietetic treatment aiming at general invigoration.

Mechanical measures are also widely employed in this affection, and serve a twofold purpose: they either shut off a channel to the escaping urine, or they awaken the children at the right time, or else prevent so deep a sleep as to render possible the involuntary voiding of urine. A large number of compressors have been constructed for the accomplishment of the first purpose. They press either upon the prostate or upon the penis, are put on when going to bed, and when the engorgement awakens the child he urinates and replaces the compressor. Simpler still are the various methods for directly closing the urethra at its peripheral end. Either the foreskin is drawn forward over the glans penis and tied up with a band or padded strap, or sealed with collodion, or else the opening of the urethra is stopped up. I cannot recommend such measures, and never employ them myself. Here and there a mechanical prevention of the escape of urine may serve as a reminder to the children, the constriction being gradually reduced and finally dispensed with,—and yet such measures cannot be recommended. With younger children they are wholly out of the question. No physician will prescribe to any save very intelligent boys, for self-adjust-

ment, an apparatus which ties up an organ so sensitive and so quick to react to every perturbing influence. With the greatest caution, œdema and inflammation may yet result.

The other purpose of mechanical treatment—the awakening of the patient—has also prompted a number of peculiar measures yielding very questionable service. To prevent deep sleep, children have been compelled to repose on very hard beds. Some physicians have so far forgotten themselves as to prescribe the tying of a cloth about the boy's waist, with a hard knot pressing against the back, to compel sleeping on the side, which is less favorable to the involuntary voiding of urine. Many families bind a large brush with sharp bristles against the poor youngsters' backs. All these torments must be severely condemned, and all awakening apparatus for bed-wetters, no matter how invented and patented, are not only highly inhuman (for they simply torture and alarm the children and render them more sensitive and irritable) but foolish and futile; for ere the sleeper has been roused, the mischief has been done.

Local treatment is not very promising, but possesses a certain auxiliary value when cautiously performed under the proper restrictions. In all cases, however, unless special indications exist, there should be no energetic intervention, and such measures as circumcision or the application of blisters to the lumbar region of boys, or of solution of silver nitrate to the neck of the bladder, are all painful and useless torments, possessing only a historic value. Great care should also be used in introducing and leaving bougies in the urethra, although the trouble has been at times overcome when I have introduced into the urethræ of boys soft Nélaton catheters, leaving them in place for two to three minutes.

The most serviceable local treatment is the application of the electric current to the sphincter of the bladder. This measure will sometimes so far strengthen the debilitated obturating muscle as to render it capable of doing its work during sleep without aid of the will. As the sphincter of the bladder is intimately connected with that of the bowel, the one electrode (which must, of course, be

of the proper form—a metal rod, about as thick as a lead-pencil and about seven centimeters long, with a wooden handle) may be introduced into the rectum, while the other electrode, consisting of an ordinary sponge-bearer, applied externally, is placed (with boys) in a raphe of the perineum; with girls, in a fold of the pelvis; or, in girls, the first electrode may be inserted into the vagina. At first the faradic current must be very weak, so as not to be felt by the children, to avoid frightening them. After a few applications the current is strengthened, but should not exceed the limits of the tolerable. In this manner, as a result of the daily application of the current for five to ten minutes, during four to six weeks, the ailment may be made to vanish. Concurrently, of course, the other necessary measures must be used, and reliance is not to be placed on local treatment alone. The daily application of the induced current cannot be continued longer than the above period. If relapses occur, the treatment can be resumed, but it must then be confined to séances at intervals of three to four days.

Further general treatment is called for as the condition of the patient demands. Where children are feeble and irritable, everything should be employed that promises to invigorate and to restore tone—suitable dietary, change of air, etc. It is always the physician's duty to gain the confidence of his little patients, not only for the purpose of discovering and checking bad habits, but also to bring about a willing and careful compliance with instructions. Accustom the children to regularity in all functions, not only in reference to diseased organs, but also to regular stools and regular bathing. Remember also cool sitz-baths are preferable to warm. Feather-ticks must be discarded, and the bed be not too warm; let the children sleep on a mattress provided with a rubber covering. Proper exercise should be taken in the form of walking or gymnastics; a suitable time each day should be spent in the open air. Also exercise the patient daily in resisting the impulse to urinate, in so far as this can be done without suffering, taking care not to suppress the urine by a forcible effort of the will.

I have thus briefly outlined the principal

features of enuresis and its treatment, leaving the more particular details to each physician in accordance with his own views and judgment. In conclusion I must emphasize the fact that all internal therapy should be something personal, individual, the result of a reciprocal relation between physician and patient. Treatment cannot, therefore, rest on inexorable rules, on an unchangeable formula: on the contrary, all the data given from the teacher's desk are merely indicators showing the direction that applied measures should take in given instances.

Berlin, Prussia.

THE PHYSICAL BASIS OF CRIME.

BY JOHN J. BERRY, M.D.

Criminal anthropology, a science which is so intimately associated with our professional work, forms a most interesting factor in the ætiology, prognosis, and treatment of mental disease. It brings to medico-legal investigation a wealth of facts and phenomena never before available, and offers to the student of humanity problems which he fain would solve, as well as theories which are startling in their suggestiveness. The careful and extended investigations of the past few years have placed the study of this science upon a new basis.—The old beliefs have given place to the new, and the added experience of time enables the observer to interpret more intelligently than heretofore the natural history of crime and criminals.

Under the old dispensation, crime bore no relation whatever to physical conformation; it was solely the expression of a moral defect for which the offender was held personally responsible. To-day it is more generally considered to be often the outcome of morbid impulses which cannot be controlled—which indeed are a part of the sinner's anatomical make-up, and which may or may not have been developed and intensified by his training and environment. "No one," says Plato, "is voluntarily bad, but he who is depraved becomes so through a bad habit of body and an ill-governed education."

That environment alone is not the determining condition of crime has been proven by many observers, but notably by Ferri, who found that out of one hundred persons in the

same surroundings of misery and neglect, sixty committed no crimes; of the remaining forty, five became insane, five committed suicide, five became beggars, while only the remaining twenty-five were guilty of sinful acts.

The functions of an organ are determined by its conformation; equally true is it that variations in its structure produce change or impairment in its physiological action. Consequently in the diseased or anomalous brain one may expect to find at least the conditions, if not the direct incentive, of perverted thought and action. Thus, if it can be shown that the criminal possesses to a remarkable degree coexisting imperfections of the body and brain, and also that such anatomical defects are hereditary in character, the position taken by modern investigators in this department of research is materially strengthened.

It has long been an accepted fact, that the moral offender has certain well marked facial defects of congenital character—in many instances the countenance is an open index of mental deteriorations. Something is there which instantly arouses aversion and repugnance. Men avoid and distrust him, and children instinctively shrink from his touch. The inferior maxilla is massive and prominent, its weight being considerably above the average, though in certain types it is small and receding. The cheek-bones are high, and the diameter of the face between the two zygomatic processes is much increased.

While the existence in idiots of dental imperfections or small teeth has been commented upon, very little is known of the corresponding anomalies of criminals, except that there is sometimes an increased—and at times a defective—development of the canines, and in prostitutes (according to Tarnowsky) undeveloped teeth and defects in the hard palate.

The ears are large and outstanding, being subject to marked deformities as regards both shape and position. Frigerio* calls special attention to a projection on the outer border of the ear, variations in the anti-helix and conical tragus. There is often

malformation of the pinna, together with the power of movement—conditions which prevail in both the insane and criminals. The nose is large, rectilinear in shape, with a horizontal base, and often deviating to one side. The skin is sallow or pallid, and the face prematurely wrinkled. Several observers have noted the predilection of this class for tattooing various portions of the body. The beard is scanty, while the hair is, as a rule, abundant. The eyes are small and mobile, and have what Lombroso* terms a feline expression. Visual defects are common, and, though sometimes acquired, are generally congenital. Of eighty-two criminals examined by Ellis,† 67 per cent. were found to have optical lesions, and out of forty of the instinctive variety, 72 per cent. were thus affected. An examination of 101 children in a reformatory institution by Van Fleet, disclosed the fact that 67 per cent. had defective vision.

The thoracic organs partake of like anomalies: deformities of the ribs and sternum, with faulty development of the chest and various forms of heart disease, are stated by Wey,‡ of the Elmira reformatory, to be very common in the class under his observation. Arterial anomalies are also prevalent. In eighty-one normal persons, Marro§ found seventy to be right-handed, seven left-handed, and four ambidextrous. In criminals, however, the proportion of the left-handed and ambidextrous was much larger,—in forty assassins it was 17 per cent.; in seventeen incendiaries, 28 per cent.; in forty-four burglars, 18 per cent.

General sensibility was found to be diminished in thirty-eight out of sixty-six cases, and was most marked, according to Lombroso, in murderers and incendiaries; while Ramlot,|| from a still wider observation, concludes that in these the appreciation of pain was very much less than in the normal individual. Defective hearing may also be numbered among the sensory defects.—One investigator found that out of eighty-two subjects, 67 per cent. were thus affected, while in sixty-nine others,

* Lombroso: *L'Uomo Delinquente*. 1889.

† Ellis: *The Criminal*. 1890.

‡ Wey: *Physical and Industrial Training of Criminals*. 1888.

§ Marro: *I Carattiri dei Delinquenti*. 1887.

|| *Archivio di Psichiatria*, 1889.

* Frigerio: *L'Oreille external: Étude d'Anthropologie Criminelle*. Paris, 1888.

reported by Gradenigo, the ratio was 66 per cent. The sense of smell was quite generally impaired, while that of taste was found by Ottolengui to be present in only 38 per cent. of the habitual criminals. This impairment in the special senses should be carefully noted and appreciated as indicating degeneration of important brain centres.

It is, however, in the skull and brain that are naturally found the most marked and suggestive variations. While the skulls of criminals exhibit no decided peculiarities so far as size is concerned, it may be stated that there is a notable deficiency in medium-sized heads. The calvarium often assumes a high pointed condition of parietal and occipital bones, giving rise to the "sugar loaf" appearance. In other instances there is a low, flattened conformation, with receding forehead, both of which are, generally, indicative of cerebral deficiency. Wilson, from measurements of the heads of 464 criminals, finds that the anterior portions are poorly developed, and that the cranial deficiency is associated with real physical deterioration. Forty per cent. are invalids, and a still larger proportion of those who are professional thieves. Asymmetry, though often existing in normal subjects, is much more constant and pronounced in the criminal, and is frequently a characteristic mark of his family and descendants. While the weight of the brain is not now considered as being an index of its development, Mingazzini found that in thirty-one criminals, eight presented brains and skulls of a size found only in sub microcephalic heads; in several there were marked anomalies, while six others had almost the appearance of monstrosities.

In an examination of the brains of fifty criminals, by Flesch, it was found every one presented some abnormal or anomalous condition. The chief points of difference, however, are to be found in the convolutions and fissures. It is unnecessary to enter here into minute anatomical details, but it may be stated that while very little change has thus far been discovered in the neuroglia and nerve-cells, the fissures throughout the entire structure present a decidedly confluent type, or in other words, "If we imagine the fissures to be watercourses, it might be said that a body floating in any one of them would enter almost

all the others." A new fissure indicates an increased development of the surrounding region, but when this is not present and the fissure results from the junction of previously existing ones, it indicates a defect in construction.

Another interesting anomaly, noted by Benedikt,* is, that the frontal lobe is sometimes divided into four convolutions instead of three, which phenomenon he considered an instance of reversion to the carnivorous type. This experience was duplicated by Hanst, who in an examination of the brains of eleven *voleurs recidivistes*, or habitual thieves, found the same condition in four instances.

As before indicated, single defects in certain portions may have no direct signification, but the coexistence of several, involving to a greater or less degree important parts, is indicative of, and associated with, other physical or moral deteriorations. As Benedikt† truly affirms, "They are to be viewed as an anthropological variety of their species, at least among the cultured races." In addition to the foregoing may be noted the existence of diseased conditions of the blood-vessels, membranes, and cortical substance, which Flesch and Lombroso‡ found to exist more frequently in criminals than in the typical insane.

In connection with these anomalies it is interesting to recall the definition of insanity, which Tuke§ describes as "a symptom of various morbid conditions of the brain, the result of defective formation or altered nutrition of its substance induced by general or local morbid processes, and characterized by non-development, obliteration, or perversion of one or more of its psychical functions." Strange to remark, this suggests at once the brain of the moral delinquent, whose mental and anatomical condition could be no better described. Indeed, when the lesions of both are contrasted, it is at times impossible to mark a distinction between the brain of the insane person and that of the criminal him-

* Benedikt: *Anatomische Studien an Verbrecher-Gehirnen*. 1879.

† Benedikt: *Kraniometrie und Kephalometrie*. 1889.

‡ Osler: *On the Brains of Criminals*. 1882.

§ Tuke: *Dictionary of Psychological Medicine*.

self. Irrespective of pathological defects, and from a study of the purely psychical manifestations, several authorities have relegated at least two of the five typical classes of criminals to the category of the insane, thus furnishing additional evidence of the plausibility of the theory advanced.

Mental characteristics must, then, be more or less in accordance with physical condition. Intelligence, in the true sense of the word, is commonly impaired in the criminal. While Marro found this to be the case in twenty-one out of 500 cases, the ratio is undoubtedly far greater. The delinquent is noted for his cunning, his smartness, and his ability to escape detection; he has a superficial practical knowledge which covers marked mental defects. "I have acquired the certainty in considering the moral insensibility of the criminal," says Despine, "that those who commit crime in cold blood never experience moral remorse. I found that those who manifest acute sorrow or real remorse after a criminal act have committed the act under the influence of violent passion, or by accident without intention."

Criminals, as a rule, are emotional; they crave excitement of all kinds; drinking, gambling, and orgies of every character appeal to their sensibilities: and though subject to fits of emotion or violence, each and every one is naturally indolent and requires a strong incentive to active voluntary exertion. Sexual anomalies also are well marked, and the many and varied forms of sexual perversion form no small part of the *tout ensemble* of every criminal. These phenomena have behind them causative factors which are not generally recognized: they depend only to a certain extent upon perversity or vicious influences, for they have an anatomical basis. Several German investigators, who have given this matter careful study in the light of an immense experience, are quite generally in accord as regards their ætiology. Schrenck-Notzing,* of Munich, says: "As a rule, these anomalies are certainly only symptoms of a constitutional malady or a weakened state of the brain, which manifest themselves in various

forms of sexual perversion." Krafft-Ebing,* in his monumental work on this and similar affections, confirms these conclusions by describing such perversions as the result of a general neuropathic condition, such as an arrest of mental development or a condition of psychical degeneration or a psychosis.

Take, for example, what is often a type of sexual perversion — namely, the prostitute: In addition to a strong hereditary taint of several different kinds, elsewhere noted, she exhibits, to the degree of 80 per cent., signs of physical degeneration in the cranium, ears, teeth, and palate; while the face may be delicate in contour, the jaw is square and heavy; the eyes are pale, and often show bi-chromatism of iris; the hair light and abundant; the lips and eyelids large and prominent, — added to these are many of the physical signs previously noted as belonging to the criminal. There is, moreover, a weakness of intellect, a strong neuropathic tendency, and a manifest impairment of will power. She is prone to excesses, and habits which when once acquired are seldom abandoned. She is subject to nerve storms and periodical fits of depression, and there are times when it is not discreet to either thwart or offend her. This class, like the others, has its grades and phases. The make-up of Phryne was quite different from that of the Roman camp-follower, and the woman of the slums stands out in vivid contrast with the leader of the "fast set," who, protected by the family name or social bulwarks, and taking advantage of the various safeguards which the law affords, often indulges in propensities which stamp her as a sexual pervert of a pronounced type.

The nature of these degenerative phenomena has been fully considered in the recent work of Nordau,† who finds the evidences of such defects in many of the celebrities of our latter-day civilization, and in many of our "realistic" authors whose writings are under the ban. In one of the recent apostles of æstheticism may be found a vivid illustration. That such individuals are fully responsible at all times, is quite improbable.

*Schrenck-Notzing: Die Suggestions-Therapy. 1892.

*Krafft-Ebing: Psychopathia Sexualis. 1890. Grundzüge der Kriminal Psychologie. 1872.

†Nordau: Degeneration. 1895.

"These human beings," says Sergi,* "are weaklings, and, though surviving in the struggle for life, carry the more or less evident marks of their weakness. They survive in an inferior state and are ill-qualified to contend with the phenomena of the struggle."

The researches of Darwin and Spencer, together with those of the late German school—of which Weismann† is perhaps the best known representative,—afford many illustrations of the variable but infallible laws of heredity. The atypical brain is transmitted in a more or less modified form to those who follow. The *defects* of the father are visited upon the children and the children's children, while the defective mother bestows a heritage of crime, insanity, or other diseases, which reaches down through successive generations—we know not how far. Morel,‡ however, contends that the offspring of these who supply types of progressive degeneration ultimately arrive at a state of complete sterility, after which it is impossible for the individual to further transmit the condition.

It must not be presumed that, in the process of transmission, like invariably produces like. In the particular class under consideration, *every delinquent, through the influence of external conditions, selects, as it were, from the family defect, his own peculiar vice or failing.* "Society makes its own criminals," yet though the nature of the social conditions usually determines the character of the delinquency, there may be a direct transmission of a condition upon whose expression the will is not strong enough to exercise a controlling force; consequently in the descending scale of deterioration, a parent may beget children, one of whom may be a thief, another a prostitute, another an inebriate, and a fourth insane.

According to Ellis, whose summary is here quoted, nearly 14 per cent. of the inmates of the Elmira reformatory have an insane or epileptic heredity. Of 233 prisoners at Auburn, over 23 per cent. have a similar history. Out of 266 criminals, 195 were found by Virgilio to be affected by some form of hereditary disease. Koch found the ratio to

be 46 per cent., while Marro's attained 90 per cent. Sichard, from an examination of 4000 German criminals, found an insane, epileptic, suicidal, or alcoholic heredity in 36.8 per cent. of incendiaries, 32.2 per cent. of thieves, 28.7 per cent. of sexual offenders, and 23 per cent. of sharpers. The observations of Tarnowsky,* already referred to, show that prostitutes frequently have an hereditary history of alcoholism, phthisis, syphilis, and nervous disease, while of this same class Krafft-Ebing remarks: "The anomalies are often the sign of an abnormal nervous system which is for the most part hereditary."

The existence of purely criminal families in which crime has been a distinguishing feature through many generations, has been frequently commented upon. Thomson cites an example in which there were six convicts in a single household. Despine† quotes a case of three brothers; the first had seven children, of which there were five thieves and one murderer; the second had two children, both of whom were murderers; while the only child of the third was both a thief and murderer. The history of the Juke family‡ is perhaps better known: originating from poor ancestry, it attained the number of about 1200 persons, of whom 709 could be traced; and of these, 180 were paupers and vagabonds, and seventy-six criminals, while of the women as far as the sixth generation, 52.40 per cent. were prostitutes.

History is replete with instances like these, in which the deterioration of a family produced by intermarriage, the action of a double taint, or other causes, is marked by various forms of crime, disease, or delinquency, which seem to be only phases of the same atypical condition. In this particular the phenomena of atavism and reversion, instead of discrediting the theory, afford a strong argument in behalf of natural laws.

Both as a cause and result of abnormal conformation, inebriety affords many illus-

*Sergi: Degenerazione Umane.

†Weismann: Die Constinuitat des Keimplasmas. 1892.

‡Morel: Traite des Degenerescences. 1857.

*Tarnowsky: Étude Anthrometrique sur la Prostituees et les Voleuses. 1889.

†Vidal: Etat actuel de l'Anthropologie Criminelle. 1892.

‡Dugdale: The Jukes—A Study in Crime, etc. 1877.

trations. Of the 4550 inmates of the Elmira institution, drunkenness was found in one or both parents in 38.4 per cent., though it was undoubtedly present in many more. Of the seventy-one examined by Rossi, the father was found to be a drunkard in twenty and the mother in eleven instances, while Marro* discovered in 41 per cent. of criminals a similar heredity. "Of one hundred inebriates," says Crothers,† "sixty will be found with defective brain or nerve organization; of this number, thirty will have drunken parents, and twenty will have an epileptic, criminal, insane, or other history, while ten will have rheumatic, consumptive, or diseased parents. Inebriety in the children of these is simply a phase of degeneration."

Maternal influences have a particularly marked effect upon the succeeding generations. Laurent found hysteria very prevalent in the mothers of criminals, while Lucas‡ has recorded 279 cases of mental disease with moral obliquity which could be traced directly to such origin. The pre-natal effects of alcoholism, nervous disease and crime are particularly noticeable in sexual offenders.

One frequently encounters cases with such histories, which, though practically insane, are not so in the ordinary acceptation of the term. They are emotional, intractable, and unbalanced; their atypical condition precludes the possibility of recovery; yet their career may be uneventful until, under proper incentive or the force of circumstances, criminal tendencies or moral perversion develops.

Benedikt says: "An inability to restrain themselves from the repetition of a crime, notwithstanding a full appreciation of the superior power of the law, and a lack of the sentiment of wrong though with a clear perception of it, constitute the two principal psychological characters of that class to which belong more than one-half of condemned criminals."

No attempt is here made to attribute each and every crime to an anatomical defect, yet I believe that more extended investigations will eventually result in a new classification

of criminals, and that of the five recognized types—the insane, the instinctive, the habitual, the occasional, and the criminal by passion—three, and perhaps four, will, for physical reasons, be in part absolved from moral responsibility. While the more obscure forms of moral delinquency have not yet received legal recognition, the supreme courts of at least ten of our States have accepted moral insanity as a tenable defense when it could be clearly proven.

Crime, in many instances, calls for treatment rather than punishment. "He who opens a school," says Victor Hugo, "closes a prison." The common jail is a relic of mediæval times, and must eventually give place to institutions which are reformatory and which have greater facilities for moral, mental and physical training.

I have endeavored to state a few of the leading principles of modern criminal anthropology. Limited time and space do not permit of anything like a full consideration of even its leading features, while the many side issues, which are extremely interesting and lead into inviting fields of thought and investigation, I have been obliged to wholly ignore. Otherwise one might give in detail the natural history of each variety of moral perversion, for these various classes have their own peculiar characteristics and their own individual vices of conformation. Moreover, the doctrine of heredity as propounded by Weismann is too abstruse and technical to permit of consideration here, yet upon it rest many of the theories of the later school, and by it we are able to secure light upon problems hitherto unsolved.

It suffices for me to simply call attention to the later developments in this department of science, and to outline the principles of a study which has a most important bearing upon many of the vital questions of the day.

Portsmouth, N. H.

CARDIAC IRRITABILITY.

Doctor Eshner demonstrated a case of this character, with mitral incompetency, in which the patient was taking fifteen drops of a one-per-cent. solution of *nitro-glycerin* three times a day, with distinct amelioration of his symptoms.

* Migliaio: *Il Mondo Criminale Italiano*. 1893.

† Crothers: *The Cause and Cure of Inebriety*. 1887.

‡ Lucas: *L'Heredite Naturelle*. 1882.

THE MEDICAL AGE.

A SEPTI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., FEBRUARY 10th, 1896.

Editorial.

THE LATEST WONDER.

Recently the lay press has been exploiting a discovery in photography, that if true will ultimately have an important bearing upon medicine and surgery. It is asserted that Professor Röntgen, of Würzburg, Germany, by means of cathode rays has found it possible to photograph *through* solid bodies, at the same time securing an imprint of their contents—in other words, the human body placed in front of a camera, so as to intercept the cathode rays, can be photographed, giving a complete outline of certain of the interior arrangements of the economy, notably its bony frame.

The claim at first glance may seem preposterous, but the evidence appears to be too circumstantial to admit of doubt; and when are considered the wonderful revelations of science during the last quarter-century, one is forced to admit the term *impossible* is rapidly losing its old-lime significance. Neither is Röntgen's discovery altogether novel, as a portion thereof has been common property to electricians and chemists for some little time. In experimentation with a Crookes tube through which a strong current was passing, but which was covered with a cloth, Röntgen happened to bring his hand between the tube and some sensitized photographic paper; subsequently finding lines on the latter for which he could not account, and seeking the cause, he found the bones of his hand had been reproduced.

Hertz long ago noted that metallic films are permeable to the cathode rays from a

Crookes or Hittorf tube, and in Lenard's researches, published about two years ago, it is distinctly pointed out that such rays will produce photographic impressions,—indeed, Lenard, employing a tube with an aluminium window, through which the cathode rays passed out with comparative ease, obtained photographic shadow images almost identical with those of Röntgen, through pieces of cardboard and aluminium interposed between the window and the photographic plate.

Röntgen has, however, shown that this aluminium window is unnecessary, as some



FIG. 1.—Photograph of the bones in the fingers of a living human hand. The third finger has a ring upon it.

portion of the cathode radiations that are photographically active will pass through the glass walls of the tube. Further, he has extended the results obtained by Lenard in a manner that has impressed the popular imagination, while, perhaps most important of all, he has discovered the exceedingly curious fact that bone is much less permeable to these radiations than flesh and muscle.

Working upon the lines heralded from Vienna, Trowbridge of Harvard, Wright of Yale, and Swinton and Stanton of London have repeated many of Röntgen's experiments with success, and in some instances have added thereto. Stanton and Swinton

placed an ordinary gelatin-bromide dry photographic plate in an ordinary camera, the wooden shutter of the back was kept closed, and upon this shutter were placed miscellaneous articles such as coins, pieces of wood, carbon, ebonite, vulcanized fibre, aluminium, etc., all being quite opaque to ordinary light; above was supported a Crookes tube, which was excited for some minutes. On development, shadows of all the articles placed on the slide were clearly visible, some being more opaque than others. Further experiments were tried with thin plates of aluminium or of black vulcanized fibre interposed



FIG. 2.—Photograph of a living human hand.

between the objects to be photographed and the sensitive surface, this thin plate being used in place of the wood of the camera-back; in this manner sharper shadow pictures were obtained. Strange to say, while most thick metal sheets appear to be entirely opaque to the radiations, aluminium appears to be relatively transparent. Ebonite, vulcanized fibre, carbon, wood, cardboard, leather and slate are all very transparent, while, on the other hand, glass is exceedingly opaque. Thin metal foils are moderately opaque, but not altogether so. Says Mr. Swinton:

As tending to the view that the radiations are more akin to ultra-violet than to infra-red light, it

may be mentioned that a solution of alum in water is distinctly more transparent to them than a solution of iodine in bisulphide of carbon. So far as my experiments go, it appears that—at any rate without very long exposure—a sufficiently active excitation of the Crookes tube is not obtained by direct connection to an ordinary Ruhmkorff induction coil, even of a large size. So-called high-frequency currents, however, appear to give good results, and the experiments of Mr. Stanton and myself have been made with the tube excited by current obtained from the secondary circuit of a Tesla oil coil, through the primary of which were continuously discharged twelve half-gallon Leyden jars, charged by an alternating current of about 20,000 volts pressure, produced by a transformer with a spark-gap across its high-pressure terminals.

For obtaining shadow photographs of inanimate objects, and for testing the relative transparency of different substances, the particular form of Crookes tube employed does not appear to greatly signify, though some forms are better than others. When, however, the human hand is to be photographed, and it is important to obtain sharp shadows of the bones, the particular form of tube used and its position relative to the hand and the sensitive plate appear to be of great importance. So far, owing to the frequent destruction of the tubes, due to overheating of the terminals, we have not been able to ascertain exactly the best form and arrangement for this purpose, except that it appears desirable that the electrodes in the tube should consist of flat and not curved plates, and that these plates should be of small dimensions.

The accompanying photograph of a living human hand (Fig. 2) was exposed for twenty minutes through an aluminium sheet $7\frac{1}{2}$ millimeters in thickness, the Crookes tube, which was one of the kind containing some white phosphorescent material (probably sulphide of barium), being held vertically upside down, with its lowest point about two inches above the centre of the hand.

By substituting a thin sheet of black vulcanized fibre for the aluminium plate, we have since been able to reduce the exposure required to four minutes. Indeed, with the aluminium plate the twenty minutes' exposure appears to have been longer than was necessary. Further, having regard to the great opacity of glass, it seems probable that where ordinary Crookes tubes are employed, a large proportion of the active radiations must be absorbed by the glass of the tube itself. If this is so, by the employment of a tube partly constructed of aluminium, as used by Lenard, the necessary length of exposure could be much reduced.*

Professor Trowbridge is perhaps too optimistic, since he assumes that "by means of the mysterious light which penetrates opaque substances it will be possible to make photo-

* *Nature*, January 23d, 1896.

graphs of patients showing the location of foreign bodies with accuracy, and unerringly guiding the surgeon's knife;" that, in fact, the discovery will "reveal the hidden secrets of the body as if the outer layers of flesh were but thin air." Manifestly he is carried away by enthusiasm, since a moment's reflection will show that the very claims made would entirely deprive the new process of photography of the power of yielding any material aid to pathology, physiology, or diagnosis, at least until it can differentiate between tissues as the spectroscope differentiates rays of color.

THE "MISSING LINK."

The interesting "find" made a year ago on the Island of Java by Doctor Eugene Dubois, of what purported to be either an ape-like man or a man-like ape—described in THE MEDICAL AGE of February 25th, 1895, page 118—has recently excited fresh attention through the exhibition in Europe of the remains, consisting of the upper portion of the skull, a molar tooth, and a femur. From these Doctor Dubois has evolved a new genus of anthropoids, called by him *Pithecanthropus*, and to which he has added the specific title *erectus* from the fact that the femur indicates that the creature moved in an upright position—in other words, walked on its hind legs. This claim has been variously received in different localities; some accept it as well placed, while others believe that the remains belong to a low grade of the present existing man. Virchow, who is eminently conservative both as a naturalist and as an anatomist, on examining the actual remains changed his opinion and accepted Doctor Dubois' views in so far as they can be sustained on the evidence of such incomplete material. Others, in England and elsewhere, have been shown the remains and seem to incline to a similar conclusion, and the weight of opinion in favor of this being an actual "missing link" appears to have grown considerably. On this side of the water, however, there has been as yet nothing exhibited beyond photographs, and these alone are not sufficient to establish a definite conclusion. It is now announced, however, that the original material will presently cross

the Atlantic, in which case American anatomists and anthropologists will have an opportunity to be heard.

NEW SELF-ADVERTISING DODGE.

In an exchange we note an author reports a series of cases beginning of follows:

"Case No. 704212," etc.

This both looks and sounds well! But is it not a trifle overdone? Of course it bespeaks a wonderful—we might say enormous—practice, if taken seriously, "without salt;" it does not, however, make so flattering a showing for the author's familiarity with mathematics. Very few practitioners with scant twelve years' experience can count up a record of *seven hundred thousand* cases of any one particular malady, or even that number of patients, to say nothing of the labor of numbering and recording each.

These figures mean, taken in the broadest possible acceptation, that the author has had *one hundred sixty-one* clients for every day in the year from and including the date of his graduation up to the hour in which the report was prepared; also—allowing five minutes for the entry of each—*thirteen* hours consumed daily in registering the same!

EDITORIAL NOTES.

Immunity to Serpent Poison.—

MM. Physalix and Bertrand (why is it our Gallic *confrères* "hunt in couples?") have reported to the Académie des Sciences that the blood of the viper is a real "antidote" to its virus. We presume it was intended to say *prophylactic* instead of "antidote," for the latter is a manifest impossibility; in any event the claim is set up that inoculation of the blood of a poisonous reptile renders the venom of the same creature innocuous. This certainly is contrary not alone to preconceived ideas, but also to facts elucidated by physiological experiment. The venom of the rattlesnake or cobra is fatal to itself when introduced into its circulation. An old question is thus reopened, and the opportunities afforded for self-aggrandizement will probably result in creating a muddle, which only time—very long time—will clear up.

The Sun's Electric Power.—

Mercury, the planet nearest the sun, exhibits certain minute irregularities in motion, which led Leverrier to believe in the existence of an undiscovered planet still nearer the sun as the cause of these perturbations. Later astronomers have been unable to find Leverrier's supposed planet, and other explanations of the phenomenon have been sought. Not long ago Professor Newcomb suggested the possible existence of a ring of little bodies revolving around the sun between Mercury and Venus. More recently M. Wellman, in France, raised the question whether electrical repulsion from the sun may not be the cause of Mercury's irregular movement. In support of this idea the fact is recalled that evidence of the sun's exercise of a repellent force, probably electrical, is furnished by the phenomenon of comets' tails.

The Red Cross Shut Out.—

The Turkish Government has forbidden the Red Cross Society to enter its territory. In announcing this decision it assumes that the reported sufferings of the Armenians are imaginary and exaggerated; moreover, it does not hesitate to express resentment at the statements that have been made in North America and in Europe. Although the terms of this announcement cover all foreign societies and individuals who desire to offer relief, no orders have been issued to stop the work now being carried on by resident foreigners—a work which, it is understood, is still in progress, inasmuch as one agency alone reports having already disbursed more than \$30,000.

Doctor John S. Billings.—

The Consolidated Library of New York—consisting of the Astor, Lenox, and Tilden libraries—has succeeded in securing the services, as librarian, of Doctor Billings, who is one of the best bibliographers in the United States. As the Consolidated Library is the largest in North America (numbering about 375,000 volumes), with property and endowments amounting to about \$8,000,000, there is certainly a great future before it under such distinguished management.

The Alcohol and Narcotic Law in New York.—

On January 29th the Medical Society of the State of New York passed a resolution declaring the inexpediency of the new law requiring pupils in all the public schools to be taught for definite periods of time the effects of alcohol and narcotics on the system, and directing its committee on legislation to use all honorable effort to bring about its repeal or essential modification.

It is to be hoped the committee will succeed.

"Don'ts for Consumptives."—

The Medical Reporter Publishing Co. of Rochester, New York, announce, under the above title, a new work on the scientific management of tuberculosis, from the pen of Doctor Charles Wilson Ingraham, of Binghamton. The author claims "a good understanding of his condition is the best remedy for the consumptive," and he has therefore prepared a book to aid both physician and patient.

A "University" for Selling Medical Degrees.—

There is an institution in Chicago which advertises in the daily papers under the title of "Illinois Health University." The business of this so-called university is apparently to sell degrees of M.D., without personal examination, to persons living in States that have no practical laws against quackery. It advertises in the Detroit papers.

Balling Hoofs.—

One of the troubles doctors—especially country practitioners—have to contend with, is the balling of the hoofs of their steeds with snow. A Detroit medico announces he has discovered a remedy therefor in glycerin, which is applied to the under side of the hoofs and to the shoes just prior to leaving the stable.

Just So!—

It is said that the physicians of Sweden never send bills to their patients—they trust to their honor.

This is quite often the case in this country also, but apparently the same results do not always accrue.

Items and News.

Surgery in Pompeii.—

Instruments of bronze were found in a dwelling (which has since been called the "Surgeon's House") that show a high degree of artistic workmanship. Some show the destructive effect of heat and oxydation, while others are in an excellent state of preservation.

I searched carefully, but without avail, for traces of needles or something else which would indicate that wounds were sutured. No saws, trephines, chisels, or any other instruments for operations upon bones, were found. All instruments, with the exception of specula and catheters, are diminutive in size as compared with the same instruments of modern times. The absence of saws and chisels is noteworthy, as among the agricultural instruments these tools are represented by specimens of a high degree of perfection.

If one judges the worth of the Pompeian surgeon by the collection of instruments left behind him, it is evident that sanguineous operations were confined to bleeding, cupping, extraction of foreign bodies, and opening of abscesses. The metallic medicine-box, the spatula and spoon, indicate free use was made of medicines and ointments. The instruments and implements of wood, splints, etc., were of course destroyed by fire and heat, and in the collection their absence undoubtedly represents a large part of the resources of the Pompeian surgeon.—DOCTOR SENN, in *Medical News*.

Sensible Women.—

The Englishwoman is greatly to be admired for her utter refusal to worry or to be worried, and the consequence is that she looks young at fifty. She undertakes no more than she can comfortably carry out, and thoroughly believes in the coming of another day; not that she procrastinates, but she simply will not let the domestic machinery grind her down to ill-health and early old age. She is a frequent bather, and regards health as the prime factor of life, to be looked after before everything else, though the breakfast be an hour late. She sleeps nine hours, and takes a nap during the day at that. She arranges her day's work in the most systematic manner, and her little memorandum slip always shows two vacant hours; they are for rest. She eats heartily, but of the most digestible food. In the most modest home, no matter how little there may be on the table, there is nothing but the best. She would rather have a mouthful of good food

and go partly hungry, than eat a whole meal of cheaper things. She is a true economist, regulates her expenses carefully, and is a true believer in the allowance system. There are some things about the Englishwoman which her American sister dislikes, just as it is *vice versa*; at the same time, there are others which would make our American women happier and healthier if they imitated.—*Medical Progress*.

The Clinical Thermometer.—

What is the use of a thermometer, anyhow? Does it give a better idea of what is the cause of the trouble? Are the symptoms on which a diagnosis turns explained? Does it tell you why the skin is cool and the pulse 110 or 120, or, when a woman is raving with pain resembling neuralgia of the bowels, that it is or is not impaction? Then, what does it do? One thing it does—it seems to mystify the gullible public. "Taking the temperature" seems to have some satisfactory effect on the minds of the friends of the sick. "Temperature, doctor says, is 103.45°. That settles it—he is sick, bad sick."—*General Practitioner*.

The Old Scotchman to Water.—

I ken naethin' gude aboot ye
In yer unconvaired state;
Ye're a type o' human life, they say,—
To me ye're unkin' Fate.

But sweetened wi' the sugar,
And heated o'er the fire,
And strengthened wi' the whusky—
Hech! hech! I must admire;

For then ye're type o' toddy—
O' human life a type;
An' I'll say some gude aboot ye
When I gie my lips a wipe!

—*Town Topics*.

Incompatibles Will Not Mix.—

At Ludiana, North India, a school of medicine for Christian women was started in 1894, and they have thirteen students. The object of the school is said to be "to fit them to minister to the spiritual as well as to the physical needs of the people." Imitating the above, some "magnanimous" philanthropists of Chicago are starting a mission medical college. Just let this go, and medicine will drift back to the monasteries from whence it came.—*Medical Review*.

Sir William Hingston.—

This eminent Montreal surgeon, who has recently had the honor of knighthood conferred upon him by Queen Victoria, is a well preserved man in the early sixties, whose

white hair and whiskers, however, give him a rather aged appearance. During the years of his active practice he rode on horseback much of the time while making professional calls, and to this active exercise is attributed in great part the preservation of his physical health and vigor, despite his arduous labors in the practice of his profession.

Cause of Malaria.—

From personal observation I know that the exclusive use of pure, deep-seated water affords entire immunity against malaria in sections of country where no white man dare live and use the surface-water. Nor must it be understood that the exclusive use of pure water simply fortifies and strengthens the system against the attack of the germ. The water is the primary cause of infection, and acts as the direct carrier of the germ into the system by way of the intestinal tract.—DOCTOR I. H. BACHMAN, in *Medical Bulletin*.

To Preserve the Health of Women.—

Every person, firm or corporation employing females in any manufacturing, mechanical or mercantile establishment in New Hampshire, will henceforth, by act of the Legislature, be obliged to provide suitable seats for the use of the females so employed, and shall permit the use of such seats by them when they are not necessarily engaged in the active duties for which they are employed. A fine of not less than \$10 nor more than \$30 is the penalty prescribed for each violation of this law.

Falsification of Codeine.—

Etiévant states that candied sugar is used to adulterate codeine or as a substitute for it, the crystals appearing similar at first sight. Fehling's solution and the polarimeter will reveal the fraud, as the codeine deviates to the left, the sugar to the right.—*Repertoire de Pharmacie*.

Another Removal.—

The *Times and Register*, not to be outdone by its migratory Philadelphia contemporaries, hies itself off to Boston, where it will be edited, though it will still be printed in Philadelphia. It henceforth will appear bi-weekly—twenty-six times a year.—*Buffalo Medical Journal*.

School Physiology.—

Doctor R. H. Hopkins, in the *Buffalo Medical Journal*, says the New York law compelling the teaching of "Physiology and

Hygiene" in the public schools is an "offense" against science, art, and religion, and its text-book the "laughing stock" of students.

Tea Cigarettes.—

The dangerous habit of smoking green-tea cigarettes has fastened upon the women of England, who now smoke their five o'clock tea instead of drinking it. The effect upon their nervous systems is said to be extremely bad.—*Cassell's Saturday Journal*.

Water.—

When judiciously taken in half-pint doses as a laxative in the morning, as a sedative at night, as a diuretic when the skin is cool, as a diaphoretic when the skin is warm, as an expectorant or a refrigerant, its value is remarkable.—*Pye-Smith*.

A Psychological Twist.—

Doctor T. Lauder Brunton has made a psychological analysis of President Cleveland's message on the Venezuelan question, and concludes that it is only a powerful plea for peace.—*Medical Record*.

A New Method!—

Doctor Furseno, of Copenhagen, believes that the adoption of the "red room" in the treatment of smallpox will reduce the mortality, shorten its duration, and prevent the formation of scars.

Neurasthenia.—

- R Valerianate of zinc, 20 grains.
- Valerianate of quinine, 20 grains.
- Valerianate of iron, 20 grains.

Make twenty pills. One three times daily.

—*Exchange*.

Suggestive.—

Physician: "What is your profession, sir?"

Patient (pompously): "I'm a gentleman."

Physician: "Well, you'll have to try something else; it does not agree with you."—*Tid-Bits*.

How about Other Maladies?—

For a long time there has been a growing sentiment throughout Germany that diabetes has not been properly treated.—*Medical Record*.

Nervous Eructation.—

Eructations of gas from the stomach sometimes occur from hysteria, more rarely from neurasthenia and from genital neurosis.

Book Reviews.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for December 21st has a valuable editorial on "The Dangers of Labor Legislation." There are excellent papers on "Heavy Frames in Wood and Iron;" "Where Walnut is Used;" "A Roman Catholic Cathedral in Chicago;" "Hammered Iron Screen;" "Corborundum;" "A Remarkable Tree;" "Foundations in Chicago;" "Legal Notes;" "An Old Spanish Bell;" "Electrical Hazard, and How to Guard against it."

The contents of the issue for January 18th are: "The Tall Building Controversy;" "How to Expedite the Construction of Public Buildings;" "Editorial Notes and Comments;" "Fever Hospitals"—III; "Defective Electric Wiring;" "In Streets and Papers;" "Arguments For and Against Tall Buildings;" "Felling off Factory Chimneys in Aberdeen;" "Electric Tramway in Rome;" "Legal Notes;" "Obituary;" "Personal;" "Societies;" "Correspondence;" "Special Mention."

The issue of January 25th contains: "A New Municipal Building for New York;" "New York Trade Schools;" "The Brotherhood of Architects;" "Catalogue of the Avery Architect's Library;" "Seventy-first Annual Exhibition of the National Academy of Design;" Edward Atkinson on "Steel in Fireproof Construction;" "Bronze Statuary and the Customs;" "Useless Expenses in Chicago;" "Bills for Public Buildings," and the usual Reports of Societies, etc.

The contents of the issue for February 1st are: "American Students Abroad;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance, and Humor of Architecture;" "Obituary;" "Italian Mosaics"—the Cosmatesque work at Terracina; "In Streets and Papers;" "Legal Notes;" "Correspondence;" "Societies;" "Personal;" "Civil Service Examination;" "Current Notes;" "Industrial Progress."

THE UNITED SERVICE. Price, 25 cents; \$2.00 per year. L. R. Hammersly & Co., Philadelphia.

The January issue of this "monthly review of military and naval affairs," which has become essential to every wearer and admirer of the blue, opens with a notable paper on "Prince Eugene at Belgrade," from the pen of David Graham Adee; "Korea in July, 1895," by William McE. Dye, military advisor to His Korean Majesty, places the affairs of the Peninsular Kingdom, and the

conduct of the Japanese, Chinese, and Russians, in quite different lights from those generally accepted.—Mr. Dye even declares he has several times endeavored to give the facts to the world, but in every instance—the present one excepted—his communications "were abstracted from the mail *en route*, or reached a subsidized press with gluttonous pigeon-holes." "The English Soldier"—as he was and as he is—by Colonel Henry Knollys, R.A., is a reprint, by permission from Blackwood, and admitted to be by long odds the best delineation of Tommy Atkins that has ever appeared in type. "Reminiscences of Seattle," by Commodore T. S. Phelps, U.S.N., deals with the Indian war of 1855-56, and the presence of the U. S. corvette *Decatur* on the Oregon and Washington coast at this period. The closing paper is a very complete *résumé* of the power and equipment of the English Navy. Under Service Salad appear a number of interesting anecdotes.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

The February issue comes out with a very elegant new dress. The frontispiece, "Unaccompanied," is a beautiful bit of art. The second of Canadian Types, entitled "A Freeman," drawn from the life of one who served his time with the Hudson's Bay Company, is exceedingly characteristic; "The Truths and Errors of Socialism" are depicted by Honorable J. W. Longley, Attorney-General of Nova Scotia; "The Navy Question and the Colonies" is discussed by Sir Charles Tupper, Bart.; "Two Beauties of the Backwoods" (part two) is by C. C. Farr; "The Ethics of War," by Byron Nicholson; "Colin—a Story," by Malcolm Mackenzie; "A Holiday Bush Adventure," by Doctor Archie Stockwell; "The New Monroe Doctrine of Cleveland and Olney," by Honorable David Mills, M. P.; another story, "The Cornflower," by Jean Blewett. The poetry of the number is by George W. Armstrong, "Con Dell," R. Belmont, Adelia Marlatt, Lizzie D. Jewett, John McCrae, Esther T. Kingsmill. A particularly noticeable feature is the first two chapters of the serial by Ian Maclaren (author of "Beside the Bonnie Briar Bush"), entitled "Kate Carnegie." There are the usual "Books and Authors," and "Idle Moments," by the editor.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

This periodical continues to be the delight of all interested in travel or outdoor recrea-

tion. In the January issue Major Baden Powell describes a run with the Cape Fox hounds; H. A. Bryden contributes a thrilling Kalahari South African tale entitled "The Tapinyani Concession;" "A Disappointment" is a semi-comic fishing tale by Christopher Davies—better known perhaps as the Prince of Anglers; E. H. Lawson Williams gives a concise but fully comprehensive account of Auld Scotia's favorite pastime, "Curling;" the Earl of Suffolk and Berkshire writes of "Harriers, Ancient and Modern," Mrs. Alec Tweedie of "Ice-boat Sailing in Holland," W. F. Collier of "Sport of Dartmoor," E. N. Buxton of "A Mountain Stronghold in Crete," P. H. Mules of "A Difficult Shoot;" Lord Willoughby de Broke gives another of his most interesting "Fox-hunting Reminiscences." Finally, there is the usual delightful installment of notes and pen sketches by the editor, A. E. J. Watson, under his nom-de-plume of "Rapier."

THE COSMOPOLITAN MAGAZINE. Price, 10 cents; \$1.20 a year. Cosmopolitan Publishing Co., Irvington-on-Hudson, New York.

The February number opens with an article on "Walrus-hunting in the Arctic Regions," by L. L. Dyche; Joseph Jastrow writes of "Mesmer, Animal Magnetism, and Hypnotism;" "The Charm"—a play—is by Sir Walter Besant and W. H. Pollock; "Butterflies," by James L. Allen, is continued; "American Artists' Association of Paris" is by E. H. Wuerpel; "Some Notes about Venezuela" is by T. R. Dawley, Jr.; "Progress toward the Age of the Horseless Carriage," by T. A. De Weese; "One Woman's Story," by Margaret Deland; "A Brief History of an Ideal Republic," by Sir Robert Harton. There are the usual departments of "In the World of Art and Letters," "The Progress of Science," "Some Examples of Recent Art." The poetry of the number is by Inigo Deane, Louise Chandler Moulton, Elizabeth C. Cardozo, Gustav Kobbé, William Hill. The *Cosmopolitan* management offer \$3000 in prizes for the best horseless carriages; the particulars of the proposition are given in this number.

THE AUK. Volume XIII, No. 1. Price, 75 cents; \$3.00 per year. The American Ornithologist's Union (L. S. Foster), New York.

The initial number for 1896 opens with a portrait and biography of Charles Newbold Lawrence. Then follows "The Standing of Ardetta Neoxena," by Frank M. Chapman; "An Important Factor in the Study of Western Bird Life," by Carl F. Baker; "The Pine Gros-beak in Captivity," by O. W. Knight;

"An Apparent New Species and Sub-species of Ptarmigan from the Aleutian Islands," by D. G. Elliott; "Songs of the Western Meadow Lark," by L. Belding; "A New Sub-species of the Dryobates," by A. W. Anthony; "Description of a New Jay from Mexico," by G. S. Nutter, Jr.; "Nesting Habits of Phainopepla Nitens in California," by Florence A. Merriam; "A New Warbler and New Song Sparrow," by William Brewster; "The Terns of Muskegit Island" (Mass.), by George H. Mackay; "Thirteenth Congress of the American Ornithological Union," by John H. Sage. There are the usual Reviews, Notes, News, Correspondence, etc.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

In the February number H. M. Stanley writes of "The Development of Africa;" Richard Burton, of "Little Mothers;" J. W. Palmer, of "Worthies and Dames of Old Maryland;" "Life of Napoleon Bonaparte," by W. M. Sloane, is continued; "The Graham Tartan to a Graham" is by L. I. Guiney; "The Palmerston Ideal in Diplomacy," by E. M. Chapman; "How 'The Kid' Won His Medal," by T. H. Wilson; "The Darkened Counsel," by J. V. Cheney; "The Fisher-Maiden's Song," by H. H. Boyesen; "Sir George Tressady," chapter IV, by Mrs. Humphry Ward; "Perdita's Candle," by Martha Young; "Revival of Romance," by E. M. Thomas; "Genius," by G. E. Montgomery; "Pope Leo XIII.," by F. M. Crawford; "Nelson at Cape St. Vincent," by A. T. Mahan; "Tom Grogan," chapter III, by F. H. Smith; "The Flight," by L. F. Tooker.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Company, New York.

An unusual repertoire is offered for February. The Right Honorable James Bryce and Andrew Carnegie discuss the Anglo-American embroglio from their respective standpoints. The Governor of Massachusetts discusses "Practical Politics;" Edward Atkinson "The Increased Production of Gold;" M. G. Mulhall queries if the human race is deteriorating. The "Issues of Peace and War" are discussed by Captain H. C. Taylor, the Bishop of Albany, and George Parsons Lothrop. Amelia Barr and Mary A. Livermore discuss "The Sexes;" C. A. Young writes of "The Newest Telescope;" R. Lanciani of "Lake Nemi's Mysterious Wreck;" the Right Honorable W. E. Gladstone continues his discussion of "The Future Life and the Condition of Man therein."

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 a year. Charles Scribner's Sons, New York.

The February issue contains: "The Hermit and the Pilgrim," by Clifford Howard; "Life in the Altitudes," by Lewis Morris Iddings; "Sentimental Tommy," chapters vii-x, by J. M. Barrie; "Sevillana," by Mabel Thayer; "A History of the Last Quarter-Century in the United States," continued, by E. Benjamin Andrews; "Design in Book-binding," by S. T. Prideaux; "A Long Chase," by Owen Hall; "The Ascent of Mount Ararat," by H. F. B. Lynch; "Hunting Musk Ox with the Dog Ribs," by Frank Russell; "The Singer," by M. L. Van Vorst; "Wood Songs," by A. S. Hardy; "Hopper's Old Man," by R. C. V. Meyers. There are the usual departments, "The Point of View," "The Field of Art," and "About the World."

THE NEW SCIENCE REVIEW. Price, 50 cents; \$2.00 a year. The Transatlantic Publishing Company, New York.

The January issue for 1896 contains "The Treatment of Medicine in Fiction," by C. W. Latimer; "Azotic Nutrition of Vegetables," by R. G. Abbott; "What is God?" by R. K. Carter; "Why Gold Goes Abroad," by A. C. Fisk; "The Music of the Spheres," by Mary Proctor; "The Building of a Mind," by S. M. Miller; "The Tyranny of Science," by C. Walter; "An Old Miracle," by M. Parmele. There are notes also on "Acetylene," "The Progress of Science," etc.

We regret to see that the *Review* has in one instance opened its columns to the promulgation of as rank a bit of charlatanism as has ever appeared in print.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

The issue for February contains: "Conference on Historical Criticism," by Charles de Smedt; "Should Immigration be Further Restricted," by Samuel W. McCall, Robert de Courcy Ward, and Honorable E. F. McSweeney; "The School Question in Manitoba" is discussed by Thomas O'Hagan; "Guest of the Trappists" is by A. F. Thiele; "Poet Painter," by Bernard Morgan. The short stories of the number are by Frank H. Sweet and P. G. Smyth.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

In the February number there are installments of "The Prize Cup," by J. T. Trowbridge; "Sindbad, Smith & Co.," by Albert Stearns; "Letters to a Boy," by Robert

Louis Stevenson; "Betty Leicester's English Christmas," by Sarah Orne Jewett; "Teddy and Carrots," by James Otis; "The Sword-maker's Son," by W. O. Stoddard. "The Gibson Boy" is by Christine Terhune Herick; "Hemmed in with the Chief," by F. W. Calkins; "Holly and the Railroad Signals," by Arthur Hale. The poetry of the number is by Charles Lee, Mary B. Smith, Margaret Johnson, Mary H. Rogers, and Florence E. Pratt. There are the usual departments.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. The Transatlantic Publishing Co., New York.

The contents of No. 5, Volume CXIV, are: "Documents relative to the History of Cataract Extraction," by D. E. Sulzer; "The Relative Importance of Labyrinthine and Ocular Defects in the Ætiology of Vertigo," by A. A. Boyer; "New Method of Making an Artificial Pupil by External Iritomy," by Felix Lagrange; "The Curability of Sympathetic Irido-choroiditis," by L. Laqueur; "Why Strong Contra-generic Lenses of Equal Power Fail to Neutralize Each Other," by Charles F. Prentice. There are the usual "Reports of Societies," "Reviews of Ophthalmological Journals," "Book Notices," and "Miscellany."

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. S. S. McClure (Limited), New York.

The February number contains eight important portraits of Lincoln, in connection with material never before published. Harry P. Robinson, of *The Railway Age*, describes the recent speed-run from Chicago to Buffalo; Murat Halstead contributes an article on the secret history of the nomination and administration of President Garfield; Elizabeth Stuart Phelps gives a picture of Emerson. There are also a number of fine reproductions of celebrated paintings by eminent English painters in the early part of the century, with an accompanying paper by E. H. Low. Also stories by Robert Louis Stevenson, Ian MacLaren, and Anthony Hope.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

The installment of David A. Wells's "Principles of Taxation" contains a description of the tax systems of China and Japan. There are two articles by Herbert Spencer—one devoted to the Sculptor (series on Professional Institutions), the other a reply to the Marquis of Salisbury's criticism of the doc-

trine of evolution. Professor H. C. Bolton concludes his paper on "The Smithsonian Institution." "Gathering Naval Stores" is by Lee J. Vance. Professor W. K. Brooks contributes the first part of a review of the writings of Francis Galton, under the title "The Study of Inheritance."

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The February issue is more than ordinarily interesting. It contains: "Oxford in Fact and Fiction;" "The English Soldier as He Was and Is;" "A Socialistic State;" "University Settlement;" "Christmas Customs in France;" "An Appeal for Armenia;" "Common Sense and Venezuela;" "Recollections of Carlyle;" "Ruling Race of Prehistoric Times;" "Matthew Arnold in his Letters;" "The Man of Silence;" "The Sultan and His Priests;" "Is British Housekeeping a Success;" "Interviewed by a Comudi" (South American water boa); "Returning a Verdict," etc.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 a year. Houghton, Mifflin & Co., Boston.

The February number contains "Glasses," by Henry James; "Some Memories of Hawthorne," by Rose Hawthorne Lathrop; "A Tear Bottle," by Frank D. Sherman; "The Seats of the Mighty," chapters xxviii-xxix, by Gilbert Parker; "Some Tennessee Bird Notes," by Bradford Torrey; "The Bibliotaph," by Leon H. Vincent; "The Caravan-sary," by R. H. Stoddard; "A Little Domestic," by Mary H. Catherwood; "Pirate Gold," by F. J. Stimson; "Unclaimed Estates," by H. Sidney Everett; "The Presidency of Mr. Reed;" "The Contributors' Club," etc.

OUTING. Price, 25 cents; \$3.00 per year. Outing Publishing Company, New York.

Notable features for February include "The Llewellyn Setter," "Sweet Marjory," "Paddling in Honduras," "Shooting at Swatow, China;" "Modern Snipe," "The Wizard of the Cascade," "Cycling in Mid-Atlantic," "Cruising in the Gulf," and "About the Balearics." The editorial and record departments are valuable, and the number is beautifully illustrated.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 a year. The Home Science Publishing Co., Boston.

Contents for February: "Housekeeping Near Paris," by Frances B. Merrill; "The Old and New Régime in the South," by

Pauline C. Rust; "Domestic Science at the Atlanta Exposition;" "The Cooking School Teachers' League," by Emma O. Ewing; "Rumford Kitchen Mottoes;" "Bacteria Affecting Butter and Cheese," by E. W. Allen; "Experiments with Starch," by Angeline M. Weaver; "French Surnames of Dishes;" "From Day to Day," conducted by Mrs. Lincoln; and the usual departments.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 a year. The Edwards & Docker Co., Philadelphia.

The February issue contains a paper "On Heredity and Rejuvenation" (continued), by Charles Sedgwick Minot; "The Formulation of Natural Sciences," by E. D. Cope; "Some Localities for Laramie Mammals and Horned Dinosaurs" (illustrated), by J. B. Hatcher. There are the usual departments of Petrography, Geology and Paleontology, Vegetable Physiology, Zoölogy, Entomology, Psychology, besides Scientific News and Proceedings of Scientific Societies.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. J. B. Lippincott Co., Philadelphia.

The complete novel in the February number is "Ground-Swells," by Jeannette H. Walworth. "The first Days of the World" is by Harvey B. Bashore; "The Child and His Fictions," by Elizabeth F. Seat; "Domestic Service on the Pacific Slope," by E. S. F.; "Fifteen," by Marjorie Richardson; James K. Reeve writes of "What Men Drink;" "The Aërial Monasteries of Greece" are described by Charles Robinson. The poetry of the number is by Joseph Wharton, Charles G. D. Roberts, and Clinton Scollard.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The February issue contains "The Story of Cripple Creek," by C. Warman; "Some Leading Errors of the Gold Standard Body," by Doctor Otto Arendt; "That Flood of Gold;" "Damaging Facts in the History of Bi-metallism;" "The Massacres in Turkey;" "The Right Honorable Joseph Chamberlain;" "The New Poet Laureate." There are the usual departments of Progress of the World, Current History and Caricature, Record of Current Events, Leading Articles of the Month, New Books, etc.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the February number Cleveland Moffett tells of the late Eugene Field. There is an

illustrated article on the museum freaks, another on "Studio Life in Paris," and a treatise on "What the Bicycle Does for the Muscles;" also a description of how the deaf are taught speech. In the music series, Rupert Hughes writes on Cantatas and discusses Mr. G. W. Chadwick's works. Tudor Jenks writes a farcical spook-story, and Robert C. V. Meyers contributes a romance. The Fashion Department completes the number.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. The Anthropological Society of Washington, D. C.

The February issue contains "Australian Grounds and Tree-drawing," by R. H. Matthews; and "A Vigil of the Gods—A Navajo," by Washington Matthews. There are the usual Book Notices, Anthropological Notes, and Bibliography of Anthropological Literature.

HOT-WATER HEATING, STEAM- AND GAS-FITTING. By James J. Lawler. Cloth; large 12mo; pp. 300. Price, \$2.00. Excelsior Publishing House, New York.

Though this was intended primarily for the use of plumbers, steam-fitters, architects, and the like, it is nevertheless full of most practical information to actual or prospective householders. Indeed, the volume will save many dollars to any person who is building, if its pages are carefully and understandingly perused. Especially valuable are the chapters devoted to gas-fitting, the character of meters, etc.

The illustrations show the latest and best appliances used in all systems, and present complete plans for different kinds of building, with regular working drawings; the principle of circulation is also illustrated and explained in the most comprehensive way, with full directions for estimating work. This is the only volume we have ever been able to find which gives concise and thorough information of how to set up a steam and hot-water plant, from the foundation of the boiler to the bronzing of the radiator and starting of the fire; and finally, the special commendation is deserved that everything is told in the most simple language, so that it is absolutely impossible to go astray regarding directions.

TWENTIETH CENTURY PRACTICE. Edited by Thos. L. Stedman, M.D. Volume VI. Cloth; 8vo; pp. 800. Price, \$5.00. William Wood & Co., New York.

The volume just issued from the press deals with "Diseases of the Respiratory

Tract" in a very complete and satisfactory manner. The opening chapter is upon "Diseases of the Nose," by Doctor Prosser James, of London; then follows "Diseases of the Accessory Sinuses of the Nose," by Doctor Jonathan Wright; two papers, one on "Diseases of the Naso-pharynx and Pharynx," the other on "Diseases of the Tonsils," are by Doctor E. J. Moure, of Bordeaux; Doctor A. H. Buck treats of "Diseases of the Ears;" F. H. Bosworth of maladies of the "Larynx;" Doctor T. Grainger Stewart and Doctor George A. Gibson of Edinburgh of "Diseases of the Trachea and Bronchial Tubes;" Doctor Winslow Anderson of "Diseases of the Lungs"—omitting tuberculosis and croupous pneumonia, which will be considered in a later volume along with infectious diseases. We are very glad to see that all the affections of the respiratory tract are treated from the point of view of the general practitioner rather than from that of the specialist.

SUPPLEMENT TO THE INTERNATIONAL ENCYCLOPEDIA OF SURGERY. Edited by John Ashhurst, Jr., M.D. Cloth; royal 8vo; pp. 1136. Price, \$7.50. William Wood & Co., New York.

This practically forms the seventh volume of the Encyclopedia of Surgery, and is equally a supplement to any and all works upon surgical subjects. It covers the entire field and brings down to date all the topics treated. No less than forty-eight distinguished surgeons are contributors, which fact affords abundant evidence of its scope.

Those who already possess the International Encyclopedia can at a comparatively small cost, by purchasing this work, obtain everything necessary to complete a surgical library. As stated in the preface, it makes "no claim to being an ephemeris of novelties, but aims to be a trustworthy digest of accepted and established facts." The illustrations are very numerous and of high character.

THE USES OF MEDICATED INHALATIONS. By John M. Scudder. Cloth; 12mo; pp. 159. Price, \$1.00. John M. Scudder's Sons, Cincinnati.

The subject of this work is direct medication in diseases of the air-passages. The author wishes it distinctly understood that in the majority of instances he only claims for inhalants the position of adjuncts—insisting that such be combined with judicious general treatment. The manual is very complete, more than ordinarily well illustrated, and embodies a large amount of valuable material. That it has found favor with the medical profession is evidenced by the fact that this is the fourth edition.

Therapeutic Brevities.

Treatment of Pneumonia.—The therapeutic indications in the management of pneumonia are: Suppression and limitation of the process of exudation; support of the nervous system, and particularly of the pulmonary nerve-supply; reduction of fever; and maintenance of the function of the heart.

Now what part does cold play in filling these indications? It cannot fill them all, but it covers those of greatest importance. First of all it reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates difficulty of breathing, and gives greater general comfort to the patient. It is capable, however, of doing a great deal more. In virtue of its power to stimulate nerve function and to contract small blood-vessels, it promotes the pulmonary circulation, relieves stasis, hastens resolution, and disperses the products of exudation. Strychnine in large doses sustains respiratory and cardiac innervation. Concentrated food of the most nourishing character, like fresh beef-juice, milk, brandy, etc., is needed to support the constitution. Digitalis may be employed to sustain the heart; oxygen by inhalation to relieve the breathing; morphine to induce sleep; ice-cap to the head to diminish restlessness; and strapping of the chest in case of great pleuritic pain.—THOMAS J. MAYS, in *North Carolina Medical Journal*.

In my use of ice in the treatment of pneumonia I have been struck with two things, the first being the rapid disappearance of the physical signs. I have had several cases in which the consolidated lung cleared up so thoroughly after two days that, on listening to the chest, it would have appeared to a new observer that I had made a mistake; if I had not known otherwise I would have said there had been no pneumonia there. In other cases I have found the consolidated areas disappearing under the ice treatment, and the crisis coming on much sooner than by any other measure with which I am acquainted. The second point noticed was the speedy relief to pain and fever. These facts I offer from my personal knowledge in preference to discussing any theory of the mode of action of this valuable therapeutic agent.—JOHN T. CARPENTER, *ibid*.

Doctor Georges Hayem states that amyl nitrite in large doses is much less dangerous in pneumonia than is commonly supposed. It transforms hæmoglobin in the globule itself into methæmoglobin without destroying the anatomical elements, without giving

rise to globular anæmia or alteration of the blood by globular débris. At a single séance an adult can inhale, from a compress held half an inch from the nose, sixty, eighty, or even one hundred drops. In many cases a single inhalation may be sufficient; in others two daily, morning and evening. This treatment is harmless, and can be continued during the course of the disease and for two or three days after complete defervescence. It does not change the duration of the disease nor the temperature range. It relieves the dyspnœa, liquefies the expectoration, and diminishes the auscultatory signs. It does not possess any anti-pneumococcal properties. It is probable that the lung undergoes a marked sanguineous fluxion; at all events the heart is violently excited, its beats become stronger and more rapid, and the vaso-motor effect results in facilitating the re-entrance of blood through the pneumonic areas and the absorption of the exudate.—*Journal des Practiciens*.

Chloral Hydrate.—The action and uses of chloral are universally known, and any words as to its physical properties are superfluous. Chloral hydrate is, without doubt, the surest and most reliable hypnotic, and failure with it is the exception. It is the hypnotic above all in conditions of psychical unrest. It does good service in nervous insomnia, in all exalted conditions whether maniacal or simple, in severe convulsions—as eclampsia, tetanus,—but in epilepsy, hysteria and chorea is not so infallible. It is also a most dangerous hypnotic, and should, as a rule, be a *dernier ressort* after the other remedies are exhausted; but when sleep, at once and without fail, is desired, it is *the* remedy. The physician should feel his way with small doses at first—fifteen to thirty grains; collapse and death have followed the ingestion of one drachm, though on the other hand doses of 90 to 180 grains have been taken without injury. Sometimes a period of restlessness follows a small dose, and there may be redness of the face (chloral rash) and slight hallucination; this is especially the case in weak persons and irresponsible women. There is usually considerable excitation when alcohol is imbibed at the same time the chloral is exhibited, hence the former should be, for the time being, interdicted.

Whether the chloral is decomposed by the alkaline blood into chloroform and formic acid, as held by Liebreich, the real action being that of the liberated chloroform, has never been decided. Experience teaches that by giving fifteen grains of sodium bicarbo-

nate shortly after the chloral, the action of the latter is very much hastened; also that the same, given when the patient wakes, will cause quick elimination of the drug and lessen the subsequent headache and stupor. Large doses should not be given continuously, except in desperate cases which do not yield to the other drugs.

The symptoms of chronic chloralism are very serious, being erythema, urticaria, purpura hæmorrhagica, diarrhœa, precordial oppression, dyspnœa, fatty degeneration of heart, marasmus, blunting of intelligence, dementia, and delirium. All observers agree as to the great danger of chloral in organic heart-lesions, heart-weakness, and severe affections of the respiratory tract. Most of the reports of lethal effects of chloral were in such cases as the above. Before administering chloral, the lungs and heart should be carefully examined.—*Medical Review*.

Rules for Administration of Ether.—Place on a table near at hand a glass of water and one of brandy, a hypodermatic syringe charged with nitrate of strychnine $\frac{1}{60}$ grain, a small bottle of aromatic spirits of ammonia, a tenaculum and a mouth-gag, and one pound of Squibb's ether:

The stomach should be empty; clothes loose and light. Make a starched napkin into a cone, and place a pledget of cotton or a handkerchief therein to receive the ether:

Allow no talking in the room. Administer slowly for the first few minutes, and then push:

Watch carefully the pulse, respiration, and reflex of the eye; and if there are any signs of syncope, lower the head and stimulate the heart's action:

If there is any tendency to strangulation by the tongue falling against the larynx, fasten the tenaculum and pull it forward, allowing the instrument to remain during the operation:

When the patient is thoroughly under the influence of the anæsthetic, remove the cone, and administer the ether from time to time as sensibility returns:

Remove any mucus about the mouth with the dressing forceps and a pledget of cotton. If any facial cyanosis occurs, remove the cone and induce artificial respiration:

If respiration becomes too rapid, stertorous, or irregular, or the pulse very rapid and feeble, discontinue the ether at once:

If vomiting occurs, turn the patient upon one side so that the ejected matter may pass out without producing strangulation. As soon as the vomiting is over, push the ether:

If there is any indication of heart-failure, with pallor of the face, or weakening of all the forces, administer, at once, two or three syringefuls of dilute brandy or aromatic spirits of ammonia, alternating with nitrate of strychnine $\frac{1}{60}$ grain.

These are simple rules, but important to observe, and the cautious surgeon will not disregard them.—DOCTOR CONWAY, in *Atlanta Medical and Surgical Journal*.

Radical Cure of Inguinal Hernia.—Mr. J. Hutchinson, Jr., performed the operation of radical cure after the same method on two consecutive subjects—one a young soldier, the other a man of fifty years. In both cases the aponeurosis of the external oblique was fully exposed, with the external ring and upper part of the cord. The sac was dissected out cleanly up to the internal ring, the epigastric artery marking this point; the sac was then brought through a small linear incision in the abdominal muscles above and outside the position of the internal ring; it was twisted up and laid in front of the cord (separated from the latter by the muscles). Four or five silk sutures passed through the external oblique above and below the twisted sac, and also through the latter, were securely tied, thus completely closing the small opening made in the abdominal wall, and fixing a sort of a pad in front of the canal. As the external ring was large in each case, an additional suture was employed for its pillars. No drainage-tube was inserted, and with antiseptic dressings firmly applied it was not anticipated that it would be necessary to change them for eight days. Having performed a large number of operations for inguinal hernia after this method (which is the one advocated by Professor Kocher, of Berne), Mr. Hutchinson thoroughly advocates it from experience of its results. The alleged drawback that the twisted and sutured sac may slough, he has, he said, never observed. A few cases of suppuration have been met with, but this, he thought, was no fault of the method.—*Medical Press and Circular*.

Phthisis Apparently Cured.—A woman, aged twenty-one, became ill in March, 1893, and lost flesh with great rapidity. The sputum contained enormous numbers of bacilli. She was placed on a diet of egg-albumen; given $\frac{1}{100}$ grain of strychnine and $\frac{1}{1000}$ grain atropine, every two hours, hypodermatically, and $\frac{1}{60}$ grain strychnine nitrate and $\frac{1}{2}$ grain double chloride of gold and sodium, by the mouth, every two hours. In a few days the gold and

sodium was increased to one-eighth grain every two hours. The strychnine had to be reduced in a few days for a short time, but she soon again took the original quantity. She made a recovery to her original weight of 132 pounds, and the bacilli disappeared. In August, 1895, she had a recurrence of cough, loss of weight, and bacilli. The same treatment was again resorted to. By the end of October the bacilli had all disappeared and the weight had increased from 114 to 124 pounds; the cough was almost gone and the lungs nearly normal.—DOCTOR WILLIAM PEPPER, in *University Medical Magazine*.

Saw Palmetto.—As an evidence of the health-giving properties of the Saw Palmetto, it may be mentioned that during the "off years," when the fruit is in season, every species of animal becomes fat, even poultry. During hard winters, animals and poultry stand the cold better and remain in good condition when they have access to this article of food.

In whooping-cough, bronchitis, etc., the marvellous power of this remedy manifests itself; it seems to modify in a remarkable manner the progress of pertussis. Much has been written upon the efficacy of Saw Palmetto in diseases of the bladder, prostate, etc., which I can most positively endorse, relief being often afforded from the local application of the tincture within an hour, while the urine is fully impregnated with the odor of the drug.—DOCTOR DUPON, in *American Therapist*.

Anent Calomel.—One grain of thoroughly triturated calomel is equivalent to five to ten grains of the untrituated drug. If given for its purgative effect or for its action on the liver, one-tenth of a grain triturated is administered every hour or half-hour until free evacuation occurs; or one grain is taken, and then, if necessary, ounce doses of liquid magnesia citrate can be given until free action of the bowels is obtained. The drug is not a direct diuretic *per se*, but it may act indirectly to a slight extent simply by its general stimulating action upon the emunctories of the entire body, thus favoring secretion, excretion, and the elimination of intestinal ptomaines and systemic poisons, all of which act unfavorably upon the secretory and excretory organs when present.—*Railway Surgeon*.

Shepherd's Purse.—A woman three weeks after accouchement had strangury, urine

dribbling away drop by drop, constant pains in the urethra; urine turbid, with deep red sediment. Under thirty drops of the tincture *Capsella Bursa pastoris* five times a day she was cured in eight days. Sandy sediment seems to be one of the key-notes of the remedy.

Doctor Herr is quoted as authority for the statement that in dysuria when passage is painful, with spasmodic retention, this remedy gives relief, and at the same time much white or red sand is passed. A French physician, also, claims to have stopped (with the second dose) a bad hæmorrhage from miscarriage, with twenty-drop doses of the tincture.

The drug might prove of value in gout, especially as it is known that it is apt to bring out much sand with the urine.—*Medical Recorder*.

Taka-Diastase.—Doctors E. B. Smith and E. W. Tonkin report briefly seven instances in which Taka-Diastase was employed, with very satisfactory results in five. The conclusions are that Taka-Diastase is suited for cases presenting (especially after taking much starchy food) epigastric weight and pain, bloating, drowsiness, frontal headache, with a superadded constipation. The dose may be made smaller than five grains. It should be given just before or after eating, or it may be mixed with food. It relieves the constipation of these cases in this manner: A colloid-like unconverted starch prevents watery osmosis in the intestine; but when this same starch is converted into sugar it acts more after the manner of a crystalloid and sets up osmosis of liquids, thus aiding evacuation of contents.—*American Journal of the Medical Sciences*.

Glycerin in Renal Stone.—Glycerin will dissolve uric acid freely, and is thus valuable whenever there is renal stone. The first effect of its ingestion is to increase the thirst; then pain in the region of the kidneys, limited to the side affected. The quantity of urine is increased, and after from ten to twenty-four hours small calculi are expelled. The pains are not as severe as those of renal colic, while the urine, after the ingestion of the glycerin, contains neither albumen, sugar, nor hæmoglobin. After three or four hours the presence of glycerin in appreciable quantities can be discovered in the urine; also a large quantity of mucus. Based upon these results, glycerin must be regarded as the most efficient means of treating renal lithiasis.—*Médecine Moderne*.

Passiflora.—In delirium tremens, and in the insomnia following the excessive use of alcoholic stimulants, *Passiflora* acts like a charm. It should be given in full doses, say one teaspoonful every two hours, until the desired result is obtained.

It is also valuable in fretful teething children, and may be employed both internally and as a local application to the swollen gums.

Doctor Brewer uses it in spasmodic incontinence of urine, especially in those cases where the patient is very nervous and complains of a burning sensation when the urine is voided. He also commends it very highly in the treatment of cerebro-spinal meningitis.—DOCTOR H. M. HENNEL, in *Eclectic Medical Journal*.

A Word for Alcohol.—"Even in small doses alcohol does not stimulate, but retards, vital processes." Now this is precisely what the too zealous worker requires. Alcohol prevents the human machine from wearing out prematurely. The neurasthenic brain-user takes his customary dose in the shape of wine, spirits, or more humble beer, and forthwith finds himself, *volens volens*, incapacitated from continuing his labors. He is compelled to allow his weary brain the rest which otherwise he would deny; alcohol, the fiend alcohol, becomes his guardian angel, saving him from cerebral exhaustion, if not from softening and utter demoralization.—*The Lancet* (London).

Bisulphide-of-carbon Liniment.—The following is esteemed by Doctor Chavette, of Chicago, a most valuable application in the treatment of severe rheumatism or neuralgic pain; it is especially advised in the treatment of sciatica:

- ℞ Bisulphide of carbon, 1 ounce.
Absolute alcohol, 3 ounces.
Menthol, 1 drachm.

The method of application is to apply on absorbent cotton until the heat and irritation can no longer be borne. The Doctor cites many severe cases where permanent relief quickly followed.—*Exchange*.

Cocaine in Pertussis.—In the treatment of whooping-cough, three hundred cases are reported where very small doses of cocaine were given, with good results,—one-sixteenth of a grain, increased if necessary to one-fourth grain. Large doses must be avoided. It is claimed that children bear cocaine better than adults do.—*Medical Times*.

For Asthma.—

- ℞ Syrup of ipecac, 4 drachms.
Compound spirits of ether, 4 drachms.
Tincture of belladonna, 2 drachms.
Cherry-laurel water, 2 drachms.
Water, to make 4 ounces.

Two teaspoonfuls at the beginning of an attack repeat every fifteen minutes if required.

—*The Practitioner*.

Thyroid in Goitre.—Doctor Fletcher Ingals of Chicago, has made a careful study of fifty cases of goitre treated with thyroid. The conclusion is that this remedy is quite as effective when administered internally as when given hypodermatically.—*Journal of Practical Medicine*.

Sublingual Medication.—Not only does the sublingual space absorb liquids, but it is well known that the whole body takes up liquids more or less readily in proportion to the vascularity of the region with which the liquid comes in contact.—*New Orleans Medical Journal*.

Gonorrhœa.—The best injection is a one-per-cent. solution of creosote in borated decoction of witch hazel. Employ four times daily. It will destroy the poison in a few hours.—*Clinique*.

A New Galactagogue.—This is promised in a plant known as the common goat's rue, *Galega officinalis*. One drachm of the tincture is given about five times a day.—*Medical Compend*.

Psoriasis.—Five minims of oleoresin copaiaba, administered three times daily, is recommended for long-standing cases.—*Maryland Medical Journal*.

Mydriatics.—Atropine is no longer used abroad as a mydriatic; scopolin has entirely supplanted it, because it does not cause glaucoma, like the former.

Hysteria.—It is said that one-tenth grain of apomorphine, given hypodermatically, will break up and thereafter prevent any attack of hysterics.

Pilocarpine.—One sixth to one-fourth grain of this alkaloid, given subcutaneously, will abort the chill of intermittent fever.

Medical Progress.

THE DIGITALIS GROUP IN HEART DISEASES.—The fundamental action of this group is to increase the elasticity of muscular fibre. This causes the heart to dilate more slowly and to contract more firmly; the heart will thus be more fully emptied. The circulation through the heart muscle is a very short circuit, and consequently the heart receives more blood than any other organ in the body in the same time. The arterioles are likewise richly supplied with blood, and are acted upon by the digitalis group of plants with considerable energy, but not so much as the heart, owing to the rapidity of the circulation through the latter. The effect of this is that every muscle in the body is flushed with blood, at an increased pressure, and their nutrition greatly improved, including the myocardium. This is mainly the action of digitalis. The entire group act in a somewhat similar manner, with many differences special to each member of the group. Digitalis acts powerfully on the heart and arterioles; ergot on the uterus and bladder, and less on the heart and arterioles; strophanthus acts with much energy on the heart, but slightly on the arterioles. This difference in strophanthus is of much importance. Any increased arterial pressure that comes from its use must be due to greater heart-action, and will not be as continuous as in the case of digitalis, because of the absence of resistance from the arterioles; the muscular system will not be so favorably affected. Thus, in the employment of strophanthus, the results must come from its action on the heart, and this explains why the dose has to vary so much, say from five minims every four hours to ten minims every two hours.

Strophanthus has two advantages that must not be lost sight of: it is readily soluble in water, and acts with great rapidity on the heart. Thus, where prompt action is imperative, and absorption by the stomach slow and uncertain, the hypodermatic administration of strophanthin is of great value. In such an urgent case, however, it is doubtful if the hypodermatic injection of ether would not be of more use than ether strophanthin or digitalis.

There is no more potent benefactor of mankind than digitalis; for more than a hundred years it has been regarded as a sovereign remedy for dropsy. There is an idea in the minds of very many medical men that it is a dangerous cardiac sedative, but this is entirely erroneous. We now know that digi-

talís acts as a tonic on the muscular fibres of the heart and arterioles; and it is in its capacity as a tonic in this way that it does its work.

Digitalis in every form is absorbed with difficulty and slowly eliminated from the system. If given at too short intervals, it accumulates within the system, and toxic symptoms may very readily appear. It is of special value in a class of cases where sudden deaths are liable to happen, and this has been unfortunate for its reputation; with ordinary care no fear need be entertained on the ground of accumulation.

Thin and anæmic are more quickly saturated than plethoric people. The average tonic dose for most cases is one grain of powdered leaves every twelve hours, a dose that may be continued as long as there is any need for the drug. Under such a dose the feeble heart slowly gains tone, and the weak impulse becomes a strong one; there is an increased sense of well-being.

In many young persons, after febrile or exhausting diseases, and when chlorotic or anæmic, there are dilated hearts, and far too often these cases are regarded as merely functional and left to time and nature to cure. It is painful to find that later in life many of these persons are debarred from entering upon any active form of life, and that a little timely attention and a course of digitalis would have obviated a life of comparative invalidism.

Our forefathers gave as much as ten grains or twenty grains at short intervals in bad cases of dropsy, which would be followed in two or three days by diuresis. We now know that digitalis has no action on the kidneys, and the diuresis is due to the improved state of the circulation.—As the arteries fill and the veins empty, the effusion is absorbed, the blood becomes more watery, and this excess of water is excreted by the kidneys. One should not run any risk by giving dangerously large doses, since all the good can be obtained by safe quantities—three grains every eight hours will be found efficient in cases of dropsy, and the symptoms of saturation may be looked for when about thirty or forty grains have been ingested; these symptoms are: diminution of primary diuresis, slowing of the pulse, nausea, or, more rarely, diarrhœa. If the drug is stopped on the appearance of any of these, the patient will suffer no harm. When digitalis is pushed too far, complete suppression of urine may occur. Diuresis recurs, and continues usually until all the fluid is drained off. The slow pulse of digitalis is devoid of danger, but the frequent pulse is not.

Digitalis may be given in all cases of heart-failure, whatever may be the cause or condition. In cases of valvular lesion with compensation there may be no urgent need for it, but it can do no harm in tonic doses. In all such cases there is a steady heart-failure, and to counteract this the drug is of the utmost service. Some object on the ground that the drug in such cases causes hypertrophy, but this is an error; there are drugs that cause atrophy, but none that produce hypertrophy. Hypertrophy in a muscular organ is due to a call for increased exertion; it is only when dilatation has occurred that the needful compensating hypertrophy follows. Digitalis increases the elasticity of the myocardium, and enables it to withstand the dilating influences to which it is subjected. Thus digitalis, in due tonic doses, delays dilatation, and retards, rather than precipitates, hypertrophy.

Corrigan long ago (and many since) raised a warning voice against the employment of digitalis in aortic regurgitation, on the ground that it acted as a sedative; this also is incorrect, for it is a tonic, and in this very form of heart disease is of the greatest service in resisting dilatation, and consequent sudden heart-failure; in such cases the drug will even reduce much of the dilatation that may have taken place, as seen by the change in the position of the apex beat.

Digitalis disappoints sometimes when its assistance is most required. It has no action on the ingravescent asystole of the moribund heart. One cannot always recognize this condition, but is bound to employ the drug, as it is most likely to yield best results on general principles. When the limbs are solid with anasarca, there is little to hope from digitalis; but if the tension be relieved by purgation, then it acts well. In dilatation of the right ventricle following stenosis of the mitral valves, or in pulmonary emphysema, much cannot be hoped for from digitalis. When there is dilatation of the left ventricle from loss of elasticity of the arteries, it acts badly, and may increase the dilatation; but if it is combined with some vascular stimulant it acts well. It is said that digitalis acts badly in the fatty heart; but as most hearts that are diagnosed as fatty are really weak, it would be a great mistake not to employ it and be guided by the results obtained from its administration. — *Canadian Medical Review*.

THE OPERATIVE TREATMENT OF SCIRRHUS MAMMÆ.—This has had considerable attention drawn to it recently, and many somewhat

heroic operations have been devised and practiced. Certainly there was plenty of room for improvement in the results which were obtained by the old-fashioned type of operation, which generally consisted merely in the removal of the more prominent portion of the breast containing the tumor; and when such an authority as Mr. Bland Sutton recommends, in his work on Tumors, that the axilla should never be opened except there is some definite and tangible enlargement of the glands, one cannot feel that time is wasted in again drawing attention to the necessity for dealing with the disease in a more efficacious manner. It is once more to the microscope that we are indebted for our more advanced knowledge of the progress of this affection, and it is now well recognized that the axillary glands may contain cancerous deposits even when they cannot be distinguished under the skin by the finger. Moreover, the distribution of the lymphatics, which run from the under surface of the breast through the pectoral fascia and muscle, necessitates that these structures should not be left intact. Hence surgeons who really desire to cure the patient and not merely to give temporary relief should never be satisfied except with a very thorough and sweeping proceeding. The patient must previously be warned as to the possibility of the movements of the arm being somewhat impaired, but if she is made to realize that her life is at stake, there will usually be but little hesitation in agreeing to a radical procedure. In 1880 Gross estimated that only in about twelve per cent. of the cases operated on was a permanent cure established; whilst in 1893 Bull maintained that he had saved thirty per cent. of his cases. Rotter, in a recent paper read before the Medical Society of Berlin, compared the work of a number of surgeons in this direction, and stated that Halstead had observed local recurrences in only nineteen per cent. of his patients, whilst he himself had noticed it in only eight per cent. Heidenhain was the first to show that a large proportion of recurrences took place behind the pectoral muscle, and hence he considers that it is not sufficient merely to shave off the deep fascia from its anterior surface, but advises the removal of the muscle itself. Rotter goes still further and removes the whole thickness of the sternal portion of the muscle from the sternum to the humerus. The usual incisions are made through the skin, the lower one being prolonged upwards and outwards as far as the humerus; having dissected back the flaps, the finger is inserted under the pectoral tendon, which is divided close to its attachment, and the whole muscle

can then readily be severed from its connections and removed together with the breast in one piece. The axilla is then thoroughly cleared of all glands, a proceeding much expedited by the previous removal of its anterior muscular wall. A still more extensive procedure has recently been practiced by Mr. Arbuthnot Lane in dealing with a case in which there was considerable infiltration of the skin together with much glandular enlargement in the axilla. Any of the ordinary operations in such a case would have left an enormous area of raw tissue to be subsequently covered in either by natural processes or by grafting; there was also a great likelihood of the arm becoming useless and œdematous from compression of the axillary vein by the enlarged glands. The operation he practiced consisted in removing the breast and all the skin around it together with the arm, after taking from its upper part sufficient skin and subcutaneous tissue to cover the defect on the anterior thoracic wall. The centre portion of the clavicle was removed early in the operation so as to allow the subclavian vessels to be secured, and also to give better access to the apex of the axilla and to the subclavian triangle, which were denuded of all glandular tissue. The case he reports seems to have done admirably, and we scarcely know which to admire most—the ingenuity of the surgeon or the courage of the patient in going through such a mutilating ordeal. One cannot but think that this operation represents the farthest swing of the pendulum in the direction of operative activity, and that soon it will be practically demonstrated, to the satisfaction even of the most radical of operators, that when once the disease has extended to such a degree as to suggest the performance of such a proceeding as that indicated above, its ramifications in other directions where it cannot be followed are certain to render nugatory every attempt to eradicate it from the system.—*The Practitioner*.

ORIFICAL SURGERY.—Orificial surgery, so called, is put in a new light, and its ridiculous side more clearly brought out, when we see how this fad appears to the eye of the foreign observer. In a recent issue of the *Centralblatt für Innere Medizin*, under the title "A Cough Cured," is a note upon a paper by a Doctor F. M. Cooper, of Emporia, Kansas, published in the *Journal of Orificial Surgery*. Here is a translation of what the German editor has to say:

How a cough is cured in Kansas may be of interest to all, even if the cure be not imitated. The

writer of the paper, while passing his vacation at Manitou, the Mecca of America, was consulted by a vigorous, blue-eyed, light-haired Swedish girl of twenty-six summers, on account of a cough and various nervous disturbances.

The cure was as follows: First of all the lady must reside in the same house with the physician. Then came phosphate of iron, chloride of potash, galvanization of the body, faradization and dilatation (!) of the rectum. There followed galvanization of the solar plexus and of both vagi, nasal sprays, verbasum oil in the ears, and finally excision of the hymen and further dilatations and faradizations as already described, together with regulation of the diet and inhalations of oxygen, and the cure burst in upon this treatment like an avalanche in the mountains of the moon or an earthquake in the Sierra Nevadas. A poem by an unnamed writer closes this medical history.

It is easy to picture the astonishment of the staid and respectable German physician who reads that the insane performance described above could be carried on under the name of medicine in a civilized country, and by a practitioner who to all outward appearance is legitimately engaged in the calling. Still more must it be astonishing to find that there exists a school of medicine whose practice follows the amazing plan of which a glimpse has been given, and who are sufficiently numerous at least to have a special medical journal of their own. To the German, one doctor in far-off Kansas must be much like another, and Doctor Cooper, of Emporia, may stand as the type of the Kansas physician in the German mind. If so, who can wonder that American medical qualifications are looked upon with distrust abroad and are put under a ban together with American pork and American insurance companies? It is only when we occasionally get a view of things here through foreign eyes that we can realize how much there is that is ridiculous and blameworthy.—*North-western Lancet*.

SURGERY OF THE LUNGS.—In the lung, eroded or ruptured vessels cannot be treated directly by ligation. Neoplasms cannot be unhesitatingly removed. The peculiar arterial and venous anatomy of the lungs, their specific physiological function, their interrelation with and co-dependence on the heart, place a *grande reserve* on pulmonary surgery and limit justifiable interference to three pathological conditions, viz., hydatid cysts, gangrene, and abscess. When any one of these conditions is present and the diagnosis certain, an operation should be performed at once; any delay becomes a sin of omission.

The lungs have very meagre powers of resistance and limitation, consequently any

pus-forming foci extend rapidly and indefinitely. Another factor of importance is that spontaneous drainage in the proper place rarely occurs. These considerations render immediate surgical interference imperative. The statistics of operations for gangrene are favorable; the excessively high mortality has been substantially lowered by artificial drainage.

A cardinal rule in lung surgery is to never use the knife in incising lung tissue. All incisions should be made with the cautery, preferably the galvano-cautery.—The knife is absolutely interdicted on account of the consequent uncontrollable arterial, venous and capillary hæmorrhage. The cautery is used at as low temperature as possible—a dark-red heat.

All antiseptic irrigations have the same dangers from absorption as in the peritoneal cavity.

Operations in cases of tubercular cavities have thus far been experimental, and without exception have hastened fatal termination. In one hundred reported cases of operative treatment of tubercular cavities, five died during operation; seventy died within two weeks.

The results of operations and drainage of dilated bronchus are discouraging.

Tumors of the lungs are almost always metastatic, hence an operation can give no substantial aid.—*The Railway Surgeon*.

TRACHOMA.—Trachoma is an infectious and contagious disease which predominates in uncivilized countries, and tends to disappear with the progress of civilization and of hygiene.—Hygiene and cleanliness are the best preventives:

The malady is not influenced by altitude; it may spread wherever the people are uncleanly and live in poverty, quite as easily at altitudes of 3,000 to 15,000 feet as on the plains.—Instance the high plateaus of Asia Minor, of Persia, and of Central Asia, of Algeria and of Lybia, where trachoma is frequently found, being common in all the countries named:

All races are equally susceptible to the virus.—Immunity does not exist for certain races, but is the result of individual resistance.

Contrary to general supposition, negroes are not endowed with immunity. In Constantinople the proportion of negroes affected is very high; so, too, in Lisbon, Rio de Janeiro, Havana, and France. In the United States they have been considered to have complete immunity, and Doctor Burnett, of Washington,

D. C., states he never saw a case. This is doubtless due to the fact that the negroes form a part of the old American population long established in the country, who enjoy the benefits of more perfect hygiene.

Contagion alone is not sufficient to produce an extensive epidemic of the disease; it must be seconded by bad hygiene, uncleanness, crowded living, and a sedentary life.—*Annales d'Oculistique*.

MICRO-ORGANISMS.—The function of these micro-organisms must be presumed to be in strict analogy to everything else that we know of the phenomena of life. If they abound in the food that we eat, as the European showed the Jaina sage, they are there not for purposes of harm, but to impart to us of their vital force and contribute to the nourishing of our bodies. Optimism, and not pessimism, underlies the constitution of the universe. Even those that have been indicated as sources and agents of mischief are undoubtedly maligned. They are enabled by means of warmth and moisture to absorb oxygen energetically, and thereby to hurry the processes of fermentation to ulterior decay. In the expressive language of Karsten, "they appertain neither to the animal nor to the vegetable world, their mission being only to contribute to the promotion of putrefaction and disintegration, like all septic bodies." Instead of being seeds and germs to generate special diseases, they are agents for neutralizing and removing matters that might otherwise be harmful and deadly.—*Medical Brief*.

DISLOCATION OF TESTICLE.—Doctor Ramon Guitéras recently presented a man whose testicle had been dislocated as a result of his slipping in getting off a wagon, and the wheel passing up between his limbs. The testicle was found turned away from the epididymis and lying under the dartos. After making two incisions, one on the penis and the other on the scrotum over the globus major, reduction of the dislocation was effected.—*New York Medical Journal*.

GROWTH OF THE EYEBALL.—Doctor Weiss, of Mannheim, says a large number of measurements of the eye of the new-born and of adults shows that the volume of the eye increases three or four times, while the volume of the entire body increases in the proportion of one to twenty-one. Curves show that the increase in the volume of the eye is proportionate to the increase in the volume of the brain.—*Annales d'Oculistique*.

The Medical Age.

VOL. XIV.

DETROIT, FEBRUARY 25th, 1896.

No. 4.

Original Articles.

SCARLET FEVER.

BY DOCTOR JAMES SAMSON.

If any excuse were needed in behalf of him who attempts to add to the already voluminous literature of this particular subject, one can easily be found in the tremendously important fact that there is to-day perhaps no other single matter of equal significance in the entire field of human research. The sum total of the value and utility of everything we do is only to be estimated by its influence in adding to the aggregate of human happiness. To the ardent student of the healing art the prospective importance of the life he has chosen for himself should be estimated from the standpoint of an eternally resolute conflict with the two greatest enemies of our race, disease and death, and he who does battle most vigilantly in the field where a victory is possible is the greatest hero and greatest benefactor. And thus it is by again and again reminding each other that this one disease is almost the very Goliath of all the enemies of human life, and by examining and re-examining all our weapons of defense, we can at least stimulate each other's vigilance and add something of encouragement to the race of investigators who will some day do for this what they have already done for so many of the enemies of mankind. To know that scarlet fever was well-nigh unknown in Europe until about three centuries ago, that over vast areas of our own continent it was a stranger within the memory of men still living, that in Britain and North America it is even now destroying a hundred thousand lives a year, and that there is scarcely a spot remaining on the earth where its ravages are entirely unknown, is to know enough of the importance of the subject. If the value of human life can be approximately estimated

at all, one stands appalled at the awful significance of facts like these; and to the thoughtful citizen and to the political economist who knows what sanitary science alone *could* do to mitigate such horrors, and to the man of science who is searching in fervent faith that he may perhaps even to-morrow find both the poison and its antidote, the subject is indeed rich in profound interest.

To know that the multitude of the graves of those slain by the infinitesimal germ of scarlatina exceeds by far the numbers of those who die on sea and land from smallpox, cholera, yellow fever, famine, and war, all combined, is but to know how loudly humanity is protesting against the rate of progress we have made in staying this fell destroyer since the days when Sydenham wrote of it as "only an ailment." Smallpox, the very name of which a century ago would have terrified a nation, a disease that could decimate an empire in a winter, has long ago lost vastly more than half its terrors. Diphtheria, the running mate of scarlatina for more than a hundred years, has already given up to the bacteriologist all its secrets, and promises to soon be well-nigh powerless. Cholera in the fight with science has almost consented to remain within the precincts of tropic filth, and its germ has confessed to its own fragility. Yellow fever at most refuses to leave its southern haunts, perishes in the first northern blast, and shrinks from the slightest approach of sanitary prudence. The typhoid bacillus promises from now on forever, to never desert its ancient ways, and to never come to any of us uninvited, and the deadly typhus seems never quite at home this side the sea. Tuberculosis, the mightiest of all destroyers of the race, seems slowly but certainly coming within the grasp of those who are searching so diligently for the source of all the power that helps it leave such a ghastly trail of woe behind it, and be-

fore the coming century is half-gone may have lost more than half its terrors. But the invisible, infinitesimal, undiscovered and well-nigh imperishable germ of scarlet fever is still spreading its deadly domain over wider regions of the world, still coming into community after community as inidiously and mysteriously as ever, and still slaughtering its victims as easily and as mercilessly as it did two hundred years ago. The microscopist still searches in vain for the deadly germ, the therapist still confesses with his ancestors that there is no remedy when the poison makes its fiercest onslaught, and the pathologist has contributed nothing new aside from more facts as to the widespread devastation that occurs in almost every organ of the body when the disease comes charged with its greatest malignancy.

The sanitarian, whose ancient ancestor was a Jew, Moses by name, has learned in our day that the harmless scarlatinal epidemic of ten years ago may be followed by another next year that may decimate his city—that prevention is the only real cure, and eternal vigilance the price of safety. He knows now that the clothes of the child that died thirty years ago may not yet be safely handled by another, and that the toys put in a garret when the lad that owned them was put in his grave, perhaps half a century ago, are as deadly now as they were then. He knows that somewhere on the wall of the room in which the disease has once been are germs which may remain there harmless till this generation has passed away, and then poison and kill the next. He has learned that a grave made when he himself was a boy may be opened, and the child who walks over the spot be dead before two more sunsets. He knows now that the mystery surrounding half the outbreaks in every country is no mystery at all, but only the liberating of a germ that had lodged in a crack or had been hidden in the leaves of a book, or had floated into a spider's nest in some attic long years ago. He knows that the theory of the disease *de novo* now and then from causes belonging to the surroundings is nonsense, and that no amount of damp or drought or filth or poverty can produce it, and that the ragged pauper on the street may walk about during his whole illness, and the mansion at whose

door he begs not have a child left in it at the end of a week; and thus he has learned that absolute isolation and disinfection are of tenfold, or a thousandfold, more importance than all else combined, and that this disease, like many another, should be driven from the world of civilization and intelligence.

And so, too, the student who essays to practice his profession should know that in an earnest hour he may learn the half of all that is already known of a subject as great as this; that in his work he will be sometimes useless and often powerless; that to watch one case carefully and look at another hopelessly will be his experience; and that the sanitarian must be his incessant guide and counselor. He should know that a prescription written on an envelope may carry contagion from the suburbs to the centre of the city, or that a letter written in a New England home may start an epidemic beyond the Rockies. He may always remember that a few feet of distance will almost certainly protect one child from another, but he must never forget that the infected spot may not be too closely approached for a long time to come. He may accept the fact, as a constant reminder, that the children in Number 40 may never have been in bed an hour, and all of those in 41 be beyond all hope before they have been sick an hour. Between these two extremes he will find many a case of serious illness where he can watch the fever and wait for complications and sequelæ and save a life and earn his fee. But the picture is nowhere overdrawn. I have made a visit to four robust children, and three were dead when I left the house; and I have seen three of five taken away in two days, and not a sign of eruption on two of the three; and have known the mother and her seven children who were all carried to the churchyard two by two within a week. An old friend of mine from the South arrived in Edinburgh with his family in the days when the illustrious Simpson was in the zenith of his glory, carrying with them the contagion contracted somewhere on the voyage. But the great master of his art was powerless, and the returning ship brought back a message from a man who had no longer either wife or children.

In the management of scarlatina the ques-

tion of diagnosis is of much importance. Luckily for us, there is little fear of contagion during the first or second day, else the overlooking of early symptoms would scatter many an outbreak. The period of incubation will almost always be found to be either four or five days, but thirty-six to forty-eight hours is a not at all uncommon occurrence. A very eminent authority has recently reported a case extending over twelve days, but the proof in this instance needs confirmation, because while the doctor believed he himself had carried the infection, in this he may have been mistaken, and the fact remains that if the germs had been taken to a home they might not even have reached the child for days. I am sure the disease may manifest itself in less than three days, and have never known an instance of its sparing its victim for more than eight. It is well worth remembering in this connection that a lad might borrow another's knife and carry it for a month and then be poisoned by it. But come when it may, and whether from a suspected or unsuspected source, the high fever and very hurried pulse, with an anxious countenance and restlessness, with or without nausea, should always suggest scarlatina. These are the symptoms which, with no other warnings, so often prompt us to watch the lungs until the sore throat and rash arrive to surprise us. The actual disproportion of the respiration and heart-beats might often hint at the coming eruption. And again, the very sore throat and the marked redness of the entire skin are occasionally found where smallpox vesicles will possess the field a couple of days later. In this special instance, however, the variola contagion is usually known to be in the neighborhood, and is an aid to one's suspicions, as then there are patients (very often adults) subject during any inflammatory or traumatic fever to an eruption exactly resembling scarlet fever in every detail and followed by most extensive desquamation. In these, however, with their very deceptive identity, the rash rushes as it were suddenly over the body, instead of first being found about the clavicle and along the sides of the neck. This exfoliating dermatitis may return to the same patient many times, in fact as often as the disturbing cause reappears. Quinine, balsam copaiba and

belladonna in not a few subjects produce a rash closely simulating scarlet fever, the balsam perhaps the most perfectly. That produced by belladonna appears very suddenly sometimes after the administration of an almost infinitesimal dose, and is really more of a glow than a rash, disappearing after a few hours' quiet, or after a cool sponging, as suddenly as it came, and leaving not a symptom of mischief behind.

But there is quite a large class of cases in which the eruption or its peculiar character takes no very prominent part. The child is suddenly seized with high fever, headache, vomiting, great restlessness, and an expression of intense illness. The temperature, already high within two or three hours of the first complaint, is rising every half-hour, going up to 104° , 106° , and even three or sometimes four degrees higher. The tongue is already half dry, the vomited matter is green, the nausea intense, the face a picture of misery and despair, the pulse feeble and mildly rapid, no rash or signs of any, little sore throat and sometimes none, tremor of the muscles, and commencing dull delirium or convulsions. This is the patient almost certain to die to-day in convulsions or to-morrow with coma and no rash, or to-morrow night with coma and patches of eruption here and there on the body. This is the patient to whom no drug on earth is of the slightest avail, and to whom every antipyretic known except cold water is poison. The cold pack or the cool bath made colder and colder, or cold showering or cold sponging pushed with a courageous hand, may rescue this child, but nothing else will. The fever must be stayed in an hour or two or three hours, or the patient must die. Cold water never killed such a child, nor, I believe, ever will, and its influence for good in such well-nigh hopeless extremity is greater than all other remedial agencies combined. This little life is going out almost as suddenly as a candle, and every drug on earth is useless. In one of the most excellent and most widely read works of our day the author talks of the "marked benefits" of antipyretics in this disease, and compares the various values of antipyrin, antifebrin, and others. The world may yet curse the day these popular drugs were ever discovered, but in this one disease

(and I suspect in others too) they are one and all poisonous, dangerous, deadly. The system is already waterlogged with one of the most potent poisons known, and not one of these is an antidote, but only another blood destroyer thrown into the body to further paralyze its shipwrecked energies. Nothing I can say in this direction can give sufficient emphasis to my firm convictions. Of the two great and widely divided classes of scarlet-fever patients, one needs to ask no favors from these or any other drugs, and the other can suffer nothing but calamity from their very approach. Long ago men ceased the use of aconite, veratrum and digitalis in such emergencies, and in another quarter century he who will dare to administer these newer antipyretics to patients such as these will stand alone and shoulder by himself the responsibilities of his own recklessness.

And thus dismissing the most deadly and the least dangerous forms of the disease, why need I dilate on those that run along the medium line, except to say that here we find the anginose variety leading into the putrid throat and into many complications? It is now that skill and care accomplish so very much of importance. A new poison is now added to the disaster. Lymphatics are involved in the neck, and sometimes everywhere. The system is prostrated almost beyond, and very often quite beyond, endurance. The nares are involved, and destruction of tissue is commencing there. Suppurative disease is in the Eustachian tube and on its way to the middle ear and tympanum, with the prospect of eternal deafness for its victim. Peroxide of hydrogen promises perhaps more to the throat than does anything else, and may be aided by the permanganate spray. The nose must be kept clear and wholesome, and no instruments can lend half the help of six inches of the top of a soft catheter with a rubber bulb attached to it. Oleate of mercury behind the ear, hot water poured into the ear, a little puncture in the posterior part of the tympanum the moment it bulges, repeated as often as needed, then hot-water and boric-acid washing until all inflammation has ceased, and then a careful packing with boracic-acid powder for weeks or months till the very last atom of pus has been seen, will

save the hearing and the child, and make him a useful man, and prevent him some day suffering from mastoid decay or dying from suppurative disease that has gone up to the brain through the fissure of Sylvius. And all this time till his convalescence has fully come the little patient must be fed and stimulated with constant persistence, and put on such tonics as his poisoned system calls for.

But what of the puerperal woman with an infant two days old, and a temperature of 105° or 106°, and profound coma in full possession? Shall she be drugged, or must she die, or may she be rolled in the cold pack or sponged with ice-water? If there be no suppuration in the throat, and if she has only the poison of the disease itself to contend with, she may be stripped and sponged again and again for days with the coldest water, and thus saved from otherwise certain death. She still may die, but her physician and friends are taking no chances in a case like hers. Recovery without the use of cold water would be an event that perhaps not one of my readers has yet observed.

And then at last comes the long period of convalescence of all these cases, from the very mildest to the most severe, where he only does his whole duty who remembers that one puff of chilly air for weeks to come may start a line of ruin that may run through twenty or thirty years to the premature grave of his patient.

Windsor, Ontario.

SCARLET FEVER.

BY O. C. OMOHUNDRO, M.D.

Though of ancient origin, the earlier historians described it so obscurely that it had a doubtful existence until the fourteenth century; indeed, nothing practical in regard to it was known until the sixteenth, and it was not until the seventeenth century that it was differentiated from measles, when Sydenham first recognized its entity. Since that time it has been the subject of hundreds of monographs, until now it is universally regarded as the most important disease of childhood, on account of its frequency and heavy mortality.

It was known in North America first about 1735, having probably been imported here

by European navigators. It reached South America one hundred years later.

It is more prevalent in the United States than in any other country; England next. I have no date of its first introduction into Tennessee, but the present outbreak, almost amounting to an epidemic, has been in Nashville for the last ten years, but did not until within the last six months assume much gravity or malignancy. I am indebted to the Health Officer of Nashville, Doctor N. G. Tucker, for the following statistical report:

	Number of Cases.	Deaths.
1884.....	11	0
1885.....	12	0
1886.....	27	0
1887.....	106	0
1888.....	105	0
1889.....	73	0
1890.....	17	0
1891.....	47	1
1892.....	40	0
1893.....	122	2
1894.....	235	23
1895.....	124	14

The report for 1895 is for January, February and March only, showing the increased number of cases and death-rate.

Scarlet fever has a number of pseudonyms, such as *scarlatina*, *scarlatine* (French), *scharlach-fevre* (German), and derives its name from the character of the efflorescence. It is an infectious specific fever, characterized by a deep redness of the fauces and a finely diffused scarlet rash over the body, making its appearance usually within twenty-four hours after the initial fever, most intense on the third day, and beginning to fade on the fifth or sixth, when desquamation of the cuticle, in small or large flakes, begins.

Some product of the malady, conveyed from a scarlet-fever patient to the unaffected, children particularly, reproduces the disease, which again gives off infecting material with identical properties. — No other origin is now admitted. If we find it in a new locality it is invariably traceable to an infected source. The occasional occurrence of epidemics is due mainly to an increase of children who are susceptible to this disease, as they are generally the victims, adults remaining comparatively free. The infecting product referred to is generally admitted to be a microscopic organism; and while ob-

servers have not yet photographed it, it is claimed by Klebs to be a micrococcus, sketched and named by him *monas scarlatinosa*. So also Eklund, of Stockholm, claims to have seen the scarlatina microbe, and E. O. Shakespeare describes the bacillus of Edington, which to his mind is the specific cause regardless of its true nature.

Clinical observation teaches us that the germ, whatever it may be, enters the system principally through the upper respiratory tract and rapidly infects the circulation, as proved by using this method to inoculate animals. Pathologists tell us that from the blood it penetrates every tissue, secretion and excretion of the body; hence, everything that emanates from this source is highly infectious and capable of reproducing scarlet fever.

Scarlet-fever virus surpasses that of all eruptive fevers, except smallpox, in its close adherence to objects and its portability to distant places. While children who live in the same house with infected ones are wisely excluded from public schools, yet this poison does not seem very volatile or gaseous; it sticks with tenacity to infected rooms, as well as to all objects that have been brought into contact with the patient or his excretions, for a long time afterward. Karney Rogers of New York, and Elliston of St. Thomas Hospital, cite cases where infected rooms reproduced this disease two months to two years after subsidence of the original malady or epidemic.

The mortality is about ten per cent.; two-thirds of all the deaths from this cause are within the first five years of life—five per cent. in the first year, fifteen per cent. in the second year, and twenty per cent. in the third and fourth years; all over fifteen years, less than five per cent. Its virulency is but little affected by the weather or seasons, but defective hygiene and drainage serve to increase the danger. Imperfect ventilation may make a mild case a bad one, and will render the air of the room more noxious: however, perfect hygienic surroundings are no safeguard, neither is the mildness of the source of infection any proof that contamination will not induce malignancy in another, even though both be of the same family.

Surgical operations are said to predispose

to infection; and shock to the nervous system or injury of any kind may develop an attack after exposure that might not otherwise occur. Again, the most robust (apparently) in the family may be the one to suffer most severely, and even to receive a second attack. Any one, though free, may be the carrier of infection to others. The virus adheres to every object in the sick-room throughout the whole period of illness, greatest in the height of the disease; the best authorities say it is still given off for six or eight weeks afterward; Smith says we may have a relapse or recrudescence of this disease as late as the fourth week of attack. Hence the necessity of free ventilation, antiseptics, and disinfectants, to dislodge from the sick-room the infecting material; 212° of dry heat will disinfect woolen clothes, but unpacked infected bundles are known to produce this fever months later.

Physicians and nurses, as well as others who enjoy supposed immunity from previous attacks, are liable to inflammations of the throat from toxic influences of the sick-room capable of infecting others; hence, in part from this cause, is due the difficulty that boards of health and physicians have in stamping it out of infected localities.

Isolation of all patients from each other and the rest of the family, mothers and nurses excepted, should be the rule of every physician. The incubative period varies from three to six days, a few cases having been noted to be less than twenty-four hours. The contagious area must be very small, probably only a few feet (Smith, Squire, and others), hence close contact is the condition of infection.

Types vary much in different epidemics, and in different cases of the same epidemic, even in different cases of the same family; as already remarked, one member with a mild attack may infect another with a malignant one, hence the necessity of isolation. A doctor may treat so many mild cases as to allure him into comparative unconcern, and again so many malignant ones may crowd him as to almost dethrone his reason.

Some hospitals record the necessity of stopping operations on account of surgical scarlatina. In these cases the rash and fever occurred from two to fourteen days after op-

eration. Fortunately, however, these were rendered immune from other attacks. There seem to be but two solutions to this problem: either the parties were previously infected, but not sufficiently so to overcome the resistive powers of the system until after the disturbance of surgical shock, or else there must be a form of surgical septicæmia indistinguishable from scarlet fever. Spencer Wells speaks of a surgical pyæmia which he attributes to scarlet-fever infection. The same predisposition belongs to the puerperal state; hence the absolute necessity of antiseptics and disinfectants in these cases, as well as the surgical ones after possible scarlatinal contamination of the physician; for, after all, it may be the wounds made or left in either case that are the true sources of infection, and not that there was previous systemic intoxication. Playfair virtually says scarlet fever may produce puerperal septicæmia without scarlet-fever characteristics. If this is no solution to the problem, then it would be difficult to my mind to prove that all cases of septicæmia were not due to some zymotic poison, subjectively or objectively produced, or introduced into the system, but made, like scarlet fever, to crop out by shock or operation in the form of septicæmia.

Age is not exempt from scarlet fever, but infants under six months are comparatively free; susceptibility increases up to three years of age. One attack, ordinarily, gives immunity from others, but this is by no means a corollary.

Symptoms are introduced abruptly by chill or chilly sensation. Pulse rises to 100-120, temperature to 102° - 104° ; skin hot, face flushed, eyes bright; a tendency to stupor and delirium; vomiting is present before the eruption in about three-fourths of all cases—its absence is an index of mildness, its continuance an index of malignancy. No affection of bowels in mild cases; diarrhœa in malignant ones. The attack may begin in some cases with spasms, or these may supervene later; in the former they are not so dangerous as in the latter, except in cases of stupor and high temperature. The throat is early dry and inflamed, but filled with mucus later. The tongue has a thin fur and enlarged papillæ. In bad cases pus-cells may flow from the nose. The respiratory system

is seldom involved, the kidneys not perceptibly so for five or six days. The eruption appears in about twenty-four hours after the initial fever; first on the face, around the mouth, thence spreading rapidly over the body. This is a finely diffused efflorescence, resembling the redness produced by a sinapism, smooth with the skin, the points of redness deepest in the centre; by pressure of finger it disappears, upon the removal of which it rapidly returns, usually burning and itching over the skin. The eruption remains about three to ten days, usually six days, and desquamation begins about the sixth day, ending on the twelfth.

In the malignant form of this disease the symptoms are severe from the beginning,—intense headache, restlessness or stupor, or jerking of muscles, delirium or convulsions. When coma supervenes, the patient may die in two or three days or sooner; pulse 130 and upwards, temperature 105° and upwards, capillary circulation dull and sluggish. The great danger in these cases is from irritation of the nervous centres; later, from exhaustion; still later, from kidney complications. Some cases are modified by other diseases, and they in turn are modified by scarlatina. These can only be known by association.

Scarlet fever is dangerous of itself from the virulency of its own poison; but, still more serious, it stands first in the list for its grave complications and sequelæ. When the type is malignant, grave throat-complications early appear; the fauces grow dark red and emit a foul odor; the lymphatic vessels take up this vitiated matter, which, being intercepted in the lymphatic glands, causes their inflammation, and inflammation of the surrounding structure, which is alarming in proportion to the intensity and involvement of connective cellular tissue, which may soon suppurate from obstruction of circulation, ending, if not rapidly relieved, in sloughing or possibly in gangrene and death of the patient. It is in these grave pharyngeal cases that we also get ear and nose complications. Diphtheria also is a frequent complication. The faucial exudation is true diphtheria, says Senna, the renowned French author on diphtheria; it is croupous scarlatina, says Smith. Only from a scientific standpoint is any difference made, as the treatment is the same.

Doctor C. H. Mays' statistical table shows that five per cent. of all aural affections and ten per cent. of all cases of total deafness are from scarlet fever. Rheumatic tendency is sometimes a complication in the second week, lasting but a few days. Nephritis, in my opinion, is ever present, lasting from beginning to end. Steiner always found hyperæmia present in the kidney, it made no difference how early the patient had died. Dropsy is a sequel, being, however, secondary to nephritis. I conceive the kidney complication to be due to overwork in eliminating the poison and waste produced from rapid tissue-changes. The condition of the skin precludes its assistance, the fauces being the ingress and the kidney the egress of this disease, hence both are universally involved more or less. Œdema of lungs, hydropericardium, œdema of glottis, and effusion in the cranium are possible causes of early death in scarlet fever.

The diagnosis of scarlet fever before the rash appears is impossible. Faucial redness is the first index to this disease, vomiting being generally the next. For full symptoms and differential diagnosis, see past description.

Measles begin with catarrhal symptoms and evening exacerbations, and it is seventy-two hours or more before the eruption appears, which is elevated above the surface of the skin, and is thus easily differentiated from scarlet fever.

From diphtheria, its first cousin, or close relation, its distinction is attended with some difficulty. In diphtheria the exudate makes its appearance in the throat early; in scarlet fever never until after three or four days of fever and the characteristic rash; but if it be at this period that we are called to see the patient, the difficulty is doubled, for it is about this time, in malignant cases, that the ulceration and faucial sloughing closely resemble true diphtheria; swelling prevents close inspection; the history of the case alone can tell.

From erythema it is distinguished with more difficulty, especially if this be severe and scarlet fever mild. In the appearance of each the rash is very much alike, but the rash in erythema is not so uniformly over the body, there is but little if any fever,—the temperature is seldom over 100°; in scar-

let fever the temperature is seldom as low as 100° . Faucial redness is always present in scarlet fever; it is almost universally absent in erythema.

From r  theln, in which the rash appears with the first indisposition of the patient, of variable sizes and shapes, with star-like edges, the rose-colored redness and general catarrhal symptoms, with normal temperature, serve as distinguishing signs.

Prognosis, even in mild cases, must be guarded, in view of the many sequel   and complications. Treatment and management of both house and patient should deeply interest us as practitioners of medicine. After all, it is upon this issue that depends our success or failure, for we have no prophylactic. However, since scarlet fever has been seen in the horse by Spinola, in the dog by Hiem, in the swine by Letherly, and in cattle by Kraus, we are not only menaced that these are sources of possible infection, but may entertain the hope of obtaining from some of these sources antitoxic serum, not like the cure-all serum now used for diphtheria, but vaccine matter, more philosophically like that of Jenner. For scarlet fever there is no specific; therefore, the cardinal points are isolation, ventilation, and antiseptics.

The throat, skin, and nervous system, being primarily involved, require attention first. For the throat I suggest carbolic acid, chloride of potassium, and glycerin, in lime-water, every four hours, inwardly for small children and as a gargle for older ones, alternated with muriate tincture of iron, veratrum viride, and sweet spirit of nitre, with quinine, in doses to suit age of patient and to control fever. If there is much nervous excitement, bathe in warm salt-water, 98° , for twenty minutes every six to twelve hours, as needed. Follow each bath with a lubricant of fifty parts of olive oil to one of carbolic acid. The wash for the throat is antiseptic, local heat-reducing, and germicidal, hence weakening the virulency of the poison as it enters the system. My diuretic sedative is to prevent, if possible, and relieve, if present, the universal hyper  mic condition of the kidney. By controlling fever we check tissue-changes and allay nervous excitement, dilute the urine, and promote skin-exhalations. The warm bath is an adjunct to the same end.

The lubricant renders aseptic the exhalations from the skin, and allays peripheral nervous irritation, which, if unchecked, reflects to the central nervous system. High temperature, unchecked, not only retards assimilation but promotes deleterious and dangerous tissue-changes.

The production of heat depends upon the oxydation of the constituents of the body (Billroth). Then, fever means increased oxydation of these constituents, which is molecular destruction of tissue. In this way we get waste of flesh and increase of urea. Fever diminishes the secretions of the body generally, and particularly those essential to digestion, hence the loss of appetite and of the means of resupplying the essential waste of the system. High temperature, long continued, tends also to produce albuminous and fatty degenerations, in proportion to the height of the temperature, the most dangerous of these being degeneration of the heart. High temperature artificially produced may kill lower animals; then certainly it is dangerous of itself, and should be controlled in scarlet fever.

But in the malignant form of the disease, where the system is overwhelmed with the toxic influence of the poison, the antiseptic and tonic influence of bichloride of mercury in tincture of the perchloride of iron, with quinine, every four hours, alternated with the throat-wash and salt baths named, offers more chance of success. The exact prescription should be formulated to suit the age of the patient.

Time forbids enumeration of all the various lines of treatment, such as cold baths, ice to throat and cold water to head, sponge baths, chlorinated acids for throat, digitalis, quinine and iron, sulpho-carbolate of soda, the newer coal-tar derivatives, salicylates, especially salicylate of soda—which should be given in camphor-water so as to be retained on the stomach,—etc.

In the management of the sick-room, remove every non-essential object from the room after disinfection. Exclude all persons except mother, nurses, and doctor. Use antiseptic washes for the hands, at least of all who leave the room. Keep the room antiseptic during the attack, and thoroughly disinfect the same after the removal of the

patient, free ventilation being enjoined under all circumstances.

I wish to impress two injunctions: Never have the convalescing patient exposed to the vicissitudes of the weather within six weeks after the attack; and treat every child in the infected house with antiseptic gargles and iron tonics as though you were sure of their being attacked,—if properly and early executed, and these rules adhered to, it will give immunity in nine out of ten and render mild the infection of all who are attacked.

In recording such a wide difference of types in the same family I can but conceive it to be due only to physical conditions and not to intensity of poison alone.

Ear complications should be treated upon general principles, puncturing the tympanum early, if much distended, to let out pus, quiet pain, and check ulceration.

Grave nephritis, ending in albuminuria and dropsy, is so frequent we should always expect it. When albuminuria is present, use sweet milk and natural diuretic waters for drinks, with farinaceous and animal broths for food; warm salt-water baths, 100°, bichloride of mercury in muriate tincture of iron every four to six hours, alternated with pilocarpine one-fortieth to one-twentieth of a grain dissolved in water, for a child two years old. This latter is a powerful stimulant to the salivary and mucus-secreting glands, as well as tasteless and easily dissolved in water, and is well adapted to these cases. If diaphoresis and salivation do not occur, give sweet spirit of nitre with ergot and acetate of potassium. Keep up the functional activity of the kidneys long enough and it will get well of its own inherent powers, for it is early destructive organic changes which produce dropsy and systemic poisoning from retained animal products. Desquamative tubular nephritis is curable, but interstitial néphritis never.

Nashville, Tenn.

HIGHER ENLIGHTENMENT VERSUS "AGE OF CONSENT."

BY C. C. MAPES.

Whoever hesitates to utter that which he believes to be the highest truth, lest it should be too far in advance of the time, may reassure himself

by looking at his acts from an impersonal point of view. He should remember that opinion is the agency which adapts external influences to itself; it is a unit of force constituting with other such units the power which works our social changes, and he will see that he can give full utterance to his conviction, leaving it to produce what it may. Man, with all his beliefs, aspirations and capabilities, is not an accident, but a product of time; he should remember that while he is an offspring of the past, he is also a parent of the future, and his thoughts are as children born to him, which he may not carelessly let die.

In view of the enlightenment of the nineteenth century, taking into consideration the superior educational facilities possessed in other directions, is it not strange that so little attention and energy are devoted to advancing and elevating the standard of morality and the knowledge of sexual physiology and hygiene among the masses—to the proper cultivation of scientific knowledge concerning our physical and physio-psychological being—to the careful education of the adolescent of both sexes in matters relating to sexual morality and distinctiveness?

The importance of these queries is evidenced by recent agitation of the "age of consent" laws, and contributions which have appeared from time to time in both medical and secular print. What is needed, primarily, is not so much a law governing the age of consent, as a higher standard of morality for both sexes, and an earlier and more comprehensive knowledge of the laws of procreation, together with a better understanding of the significance of the passions and emotions more or less directly dependent upon them, as well as the consequences that follow their transgression, gratification, or perversion. The best course to adopt and pursue in effecting a more extended enlightenment, is a matter which concerns the "wise statesman, the eminent medical man, and the philanthropist."

The "age of consent" laws have been severely criticised within the past year by able and careful thinkers, especially the "age" specified by the statutes of some States, and legislative representatives have been urged, by those believing that the "age of majority should be the age of consent," to secure the adoption of amendments which shall raise the age to eighteen years. Even

if such amendments were adopted, would the situation be improved?

It must be remembered that sexual appe-
tency belongs equally to the male and female,
and in establishing legislative acts governing
this question, both must be considered. It is
true greater protection would accrue to the
female by raising the age of consent to eigh-
teen years; at the same time it would be
manifestly unfair and unjust to the male, who
is entitled to equal consideration and protec-
tion. With the standard raised to eighteen
years, it would, when placed within reach of
the licentious, designing *demi mondaine*, many
of whom are under the age of eighteen years,
constitute a means for working evil that must
not be underestimated; it would then be
within her power to entice an innocent, ig-
norant schoolboy to her bagnio, and, after
seducing him, institute criminal proceedings
under protection of the law. As the present
legislation stands in many States, the penalty
for rape on a female less than twelve or thir-
teen years of age is death or life imprison-
ment. Certainly the punishment is commensurate
with the gravity of the crime, when
applied to the male, and those in whose hands
the making of this law was entrusted evi-
dently weighed the matter carefully from the
standpoint of both the male and female, de-
siring to afford adequate protection to each.
Considering these facts, it would seem that
the statutes should remain unaltered, in these
States at least.

Moreover, it has been truthfully said that
the experience of the entire world shows that
no amount of legislation can command sexual
morality. This carries us back to the funda-
mental principle—"a higher standard of sexual
morality."

Children, while still very young, should be
taught the importance of certain functions—
what they are and what they indicate in
womanhood or in manhood in relation to the
opposite sex,—and be not left to discover for
themselves the mysterious gifts of nature.
This early education should apply alike to
the male and female, and the first lessons
must not be deferred until formation in the
childish mind of erroneous ideas. "The child
is father to the man," and principles implanted
in its bosom will bear fruit in after-life. Neg-
lect of proper and adequate early training is

the cause of much mischief, and the gravest
responsibility rests with parents, especially
mothers, whose imperative duty it is to im-
part to their offspring a thorough knowledge
of the laws of procreation and kindred sub-
jects, "in terms unmistakably simple and
scientifically exact."

One cannot believe that a fond, loving
mother would dispatch an adolescent daugh-
ter upon a mission fraught with innumerable
physical dangers, without first so graphically
depicting those dangers as to leave an indeli-
ble impression upon the youthful mind, hoping
that their avoidance might thus be secured.
Granting this, does it not surpass all under-
standing how she can consistently allow the
same daughter to pass from childhood to
womanhood, to mingle with men of the world
in what we term "society," where far graver
dangers from a moral standpoint may be
encountered, in utter ignorance of all physio-
logical facts pertaining to herself as a human
being, and without an adequate training in
sexual morality?

Statistics show that cases are indeed ex-
ceptional where a female, having arrived at
the age of understanding, or, we may say,
after *vita sexualis* has been established, yields
to the seductive wiles, entreaties or threats
of a would be seducer, if she has previously
received a competent education in sexual
morality, and possesses a full knowledge of
the consequences which may be expected.
Therefore, I claim that primarily the mother
is largely responsible for the downfall of her
daughter, and with this view in mind her
duty is plainly apparent.

Literally, the age of consent should mean
the age of understanding. When *vita sexualis*
has been established—*i. e.*, that period in the
life of the adolescent female when evolution-
ary changes in the sexual apparatus make
apparent the difference between male and
female—she is practically as much a woman,
and as capable of differentiating between right
and wrong when applied to sexual relations,
as she will ever be, provided she has received
the careful early training necessary to a
complete understanding of her physiological
being.

On the other hand, after having received a
competent enlightenment and instruction in
sexual morality, after having passed the age

of understanding, after having been forewarned of the dangers consequent upon the non-observance of certain laws, if she then surrenders herself to the seducer, I can see no adequate excuse for calling upon the law, whether or not she has passed the age of consent stipulated by the legislative act.

I have no intent to convey the idea that we should uphold or countenance immorality, or aught approaching improper conduct on the part of any male toward juvenile or other femininity; but I do most emphatically claim that with the same degree of enlightenment on the part of both, each is equally guilty if the law be transgressed; and it would seem that no just tribunal could punish the one and pardon the other. *Per contra*, however, the law holds that if the female be under the age specified by the statute she may escape punishment, while the male must suffer death or confinement in the penitentiary for life; in other words, though the female may be equally guilty, the law does not recognize her as a *particeps criminis*. In this particular some of our lawmakers seem to have forgotten that woman, as well as man, is made of flesh and blood; often these very passions, particularly in the young and morally uneducated female, are the cause of such crimes. While many may be aware of the result from a social, and it may be a physiological, standpoint, the trouble is they have not been educated to subdue these passions, nor to know the moral effect of such acts.

By the penal code of France it is a crime in either sex to attempt intercourse with the other, whether with or without violence, when the child is under the age of eleven years. It is not unusual to find in the wards of hospitals mere boys affected with venereal disease, and in many instances this can only be attributed to an unnatural connection of adult females with male children, which is punished as a crime in the other sex.

That such cases have occurred and do occur is incontrovertible, and our laws should be so framed as to make it possible to apply the prescribed penalty to the female, should she be proven guilty. An instance is recorded in literature where a perverted female, having a preternatural contraction of the vagina which rendered sexual intercourse with the adult male impossible, was accused

and convicted of having forcible connection with two male children, one aged eleven, the other thirteen. She suffered at the time with primary syphilis, which was communicated to both children. This case is simply cited to emphasize the importance of my statement that the law should not recognize the male alone as the transgressor, for the possibility exists that the female may be equally guilty.

What constitutes rape and seduction, under the statutes of different States, and the conditions under which either may be perpetrated, need not be considered here, except to remark, *en passant*, that it is my confident belief that under ordinary circumstances no female who has arrived at the age of understanding, be she never so weak, so long as consciousness remains, can be forced against her will to participate in the act of copulation by a male, be he ever so strong, the statements of authorities to the contrary notwithstanding.

But to return to the original theme—a higher moral and physiological enlightenment: From time immemorial it has been the custom, for pseudo-moral and mock-modesty reasons, to strenuously avoid mention of all things pertaining to sexuality, to physiological facts relating to the laws of procreation, etc.—I say this custom not only obtains in society generally, but also at our own firesides. The resulting evils are at once apparent: children of both sexes grow to adolescence in absolute ignorance of the truths of nature in relation to human genesis, of morality considered from a sexual standpoint, and of their individual procreative functions; they are, consequently, quite unprepared to wrestle with the complicated problems of later life. Their innocence, based upon nothing more nor less than ignorance, becomes a most pernicious factor; yet they are continually taught and assured that innocence (ignorance) is praiseworthy—they are denied the knowledge and truth requisite to perfect enlightenment.

As certain as "time works changes in all things," it cannot fail to revolutionize the existing trend of public and private opinion upon this subject, and the young mind will be educated in the truths of human genesis, sexual morality, and kindred matters. As

already indicated, the greatest responsibility for this lack of proper education seems to rest with the mother. Let her, then, be impressed with the importance of truthfully enlightening her children in the natural laws governing procreative functions, instead of considering their questions foolish and, for fear of demoralizing results, giving answers evasive or absolutely false.—Such results come not from truth, but from ignorance born of deception, falsehood, superstition, and absurdity. Knowledge only can promote and maintain virtue and purity in youthful humanity; yet to conserve virtue a false sense of modesty or morality of the past has induced society to employ every method within reach to subjugate truth and encourage and perpetuate ignorance. Subterfuge, deception, and even falsehood, have been resorted to in endeavors to avoid elucidation of plain, living truths.

Can a valid, tenable reason be advanced why children should not be instructed, at a tender age, in the truths of nature and the physiological laws which govern their existence? Certainly the only way by which we can hope to shield them from physical disaster and moral contamination is by a thorough enlightenment upon these vital questions. It is a fatal error to allow them to gain this knowledge from outside sources, for reasons too obvious to require enumeration.

Fortified with a higher and nobler understanding of physiological facts, with a more elevated and comprehensive enlightenment in sexual morality, youthful humanity of tomorrow will be proof against the temptations which to-day continually confront and cause them to stumble and fall. The legal aspect will then be relegated to a position of minor importance, and the "age of consent" statute will be a thing of the past.

Louisville, Kentucky.

TYPHOID FEVER.

BY F. J. BOWEN, M.D.

What practitioner has not observed, in localities which for years had enjoyed immunity, an epidemic of typhoid fever abruptly make its appearance, attacking almost simultaneously or in close succession mem-

bers of different households considerably remote from, and in no way communicating with, one another? And not only will single communities be thus attacked, but the disease will during certain seasons prevail more or less generally throughout the country.

This, in a general way, describes my experience with a typhoid epidemic of four or five months' duration in the latter part of last year. The first case occurred in a house which had been visited by the disease some ten or twelve years before. Since that time several families had successively occupied the house, and the one in question had lived there three or four years—all enjoying a fine degree of health up to the present case. Within two or three days of the time when the first case of last year developed, a domestic engaged in the family was taken down, and later a relative, who volunteered assistance, was attacked.

Coming up to the back porch of the house was a drain, which extended three or four rods to an open ditch. An odor occasionally came from this, and very likely the emanations bore organisms from dejecta thrown into it at the time of the former case. Another significant fact is that the relative who developed the third case, partly in order to be out of danger and partly because that was the customary place, did much of the housework on this back porch, and the suspicious character of the situation was not recognized or properly cared for until some days after her arrival. I think the source of these cases is plain, but why had not cases developed from exactly the same surroundings before? Out of sixteen cases treated during this epidemic, these three were the only ones, so far as I could find, that bore any relation to a previous case; of the others, in only two instances did any one family have a second case.

The several cases occupied a territory covering more or less of three school districts, well broken by hills and valleys, and each family with its own milk-supply, well of water of average quality, etc. The only factors common to all were such as might be induced by conditions of season or weather. The season, the latter part of which was unusually dry, had been ushered in with an excessive amount of rain; this, it may be assumed,

carried into the wells more or less organic matter from the surface of the ground which, at some time, it is safe to say, had been enriched by the universal custom in farming districts of spreading barnyard manure about the premises; and such washings would, of course, settle as a sediment to the bottom. As the drouth supervened, the water lowered, and more or less of this sediment was then drawn up in the water used for drinking purposes.

Rarely is it the physician's duty to commit himself to a diagnosis at a single visit during the first week; one who does will naturally resort to the saving clause, "unless it can be broken up," and often a cheap reputation is worked up in this very manner. Nose bleed, often very slight, a pulse slow and sluggish in proportion to the temperature, the tongue covered with a thin creamy fur as if painted on with one stroke of a wide brush, slight cough, scanty high-colored urine, persistent head- and back-ache, somnolence but insomnia, irregular sensations of chilliness, irritable stomach, irregularity of bowels responding with unusual vigor to cathartics, intolerance to light, congestion of conjunctivæ, together with a characteristic heaviness of countenance, form a collection of symptoms more or less constant which suggests typhoid fever. It is not infrequent that patients complain of "trouble with the kidneys," because of the scantiness of urine, attributing headache and backache also to this cause.

With enough of the above symptoms present in a degree sufficient to suggest typhoid, the patient or family may be told frankly that only by watching for a few days the temperature range and waiting for a succession of symptoms can a positive diagnosis be made; that in the meantime a course of treatment can be adopted which will do the best for the patient in case it is not typhoid, and will place him in the best shape to withstand the attack should it prove to be such. A suitable dose of calomel should then be given, to be followed in four or five hours by castor oil or a saline. After the action of the calomel, four grains of quinine every four hours for twenty-four hours will be found advisable. This course will result very satisfactorily should the patient be suffering from some transient derangement, such as

is commonly designated a bilious attack; otherwise the characteristic uniform temperature, the ochre-colored or pea-soup stools, the development of abdominal tenderness, tympanites, and finally—during the second week—the rose spots, will confirm the diagnosis usually settled in the physician's mind before this.

In no disease is a knowledge of the natural history and a full appreciation of pathology and complications of more importance than in this. Well directed common-sense medication, I am satisfied, is of service. To "treat the patient" is all right, so far as individual peculiarities, complications, idiosyncrasies, etc., are concerned; nevertheless the malady runs a very routine, clock-like course—the symptoms or features varying somewhat in prominence and intensity, to be sure, but certain general principles of treatment not only apply, but are required in all cases. In as brief a manner as is practical I will enumerate these, giving also the agents or remedies which experience has justified me in selecting.

First, to maintain nutrition. The superiority of milk is so obvious that no argument is required in its support, though I am satisfied that in the matter of quantity its employment may be overdone; it is exceptional that a patient can digest properly three quarts in twenty-four hours, the quantity which many recommend; much more nourishment is derived from a quantity which can be perfectly assimilated, and a great deal of tympanites and intestinal irritation is thus avoided. I am well satisfied if three pints of milk can be taken and digested, given in quantities of three or four ounces at regular intervals of three or four hours. Occasionally an exclusive milk diet cannot be made to agree,—one such case I found due to the character of the feed supplied to the cows, and here a partial diet of beef-tea proved very satisfactory. In children the digestive functions often require particular attention,—lime-water, barley-water, pepsin, etc., may be required in connection with the diet.

Intestinal antiseptics is the rational plan upon which to base the therapeutics of typhoid fever. To ignore this and to rely on the cold bath to save the patient from the effects of hyperpyrexia is on a parallel with the con-

duct of a surgeon who would neglect anti-sepsis, resorting to the cold bath to save the patient from the effects of pyæmia. There are several remedies for the intestinal sepsis, and in time, no doubt, improvements will be made upon these. I am in the habit of giving salol in eight-grain doses every six or eight hours, and I find employment of remedies of this class tends to do away with those appalling cases of tympanites which are usually so prevalent in this disease. Bathing or sponging with tepid water, no cooler than is grateful to the patient, several times a day, allays nervousness and assists the action of the kidneys—one of the functions, by the way, which must be watched. In a case of moderate severity the patient may be sponged at intervals of two or three hours during the day.

The temperature occasionally may require especial measures for its reduction; but a certain amount of fever must be expected to accompany the disease, and physicians are very frequently solicitous to a fault in this regard. By the employment of intestinal antiseptics, close attention to diet and digestion, and frequent sponging, it is seldom that the cold bath, much less the so-called antipyretics, will need to be employed. Retention of urine, failure of the bowels to move, or any little source of irritation or annoyance, may cause a rise of temperature, and it is much more creditable to guard against or to correct these than to employ extraordinary measures to overcome their ill effect. The effects of high temperature, rather than thermometer figures, should be the guide, and judgment in deciding points of this character makes the skillful practitioner. A temperature ranging between 102.5° and 104° is, ordinarily, within the safety limit, but as a rule should be held from going higher, and I would, if necessary, employ the cold bath or pack to prevent further pyretic accession; though I have never yet been compelled so to do, since a moderate cooling of the water used in sponging has always answered every purpose. My only knowledge of the cold bath or pack, outside of published statistics, is from a young man on whom it was employed twice in a hospital; at the third attempt he protested so vigorously and with language so inappropriate to one suffering from a disease with a mortality reduced even

to seven per cent., that his attendants desisted. It is certainly exceptional when, with careful management in other respects, the fever cannot be kept within safe limits by means of the sponge bath, varying the temperature as required, but never so cool as to be unpleasant.

In typhoid fever there is a tendency to hæmorrhages of various kinds, which if not excessive may, and usually do, result in improvement. Once I was called to a lady thirty years of age, excessively fleshy, weighing something over two hundred, and found her well advanced in the second week of typhoid, delirious, with marked tympanites, a temperature of 105° , rapid pulse, and altogether a very unfavorable outlook. Three or four days later she had several excessive intestinal hæmorrhages, and measures were adopted, and continued throughout the remainder of her sickness, to prevent a recurrence; but from that time there was considerable improvement in the general symptoms, and in addition to the "glory" derived from saving life in spite of "bleeding," I have come to consider moderate hæmorrhage most fortunate rather than otherwise.

During the epidemic referred to above, the most severe case by all odds was a young lady seized just as she had ceased menstruating. Two weeks later menstruation returned, and simultaneously there was slight improvement in the general symptoms, which I think was more or less permanent. I have several times noticed the same result from nose-bleed; and it is an occasional experience that when life is apparently at its lowest ebb, convalescence dates from an intestinal hæmorrhage. Nevertheless, intestinal hæmorrhage—except during the first ten or twelve days of the disease—is one of the complications to be dreaded and guarded against, and attendants should be carefully instructed as to management in such cases until the physician can be summoned.

An old practitioner of large experience in army and general practice, and who is generally acknowledged by his colleagues to have profited by his experience, tells me he has never yet had an intestinal hæmorrhage when called in time to give a full dose of calomel at the onset of the disease.

For the treatment of this complication,

first, confinement to the bed throughout the disease must be enjoined as essential to safety in all cases. For arrest of the hæmorrhage, the ice-bag to the right iliac region, and opium internally, contained in the following: Turpentine, one to two drachms; fluid extract ergot and tincture opium, each two drachms; tincture wintergreen, thirty minims; and mucilage of acacia to make two ounces—a teaspoonful every four to six hours.

Tympanites, under the use of intestinal antiseptics, is largely avoided. In addition to the salol, give turpentine fomentations, and internally the above prescription, with the ergot and opium varied or omitted according to the individual case. Turpentine is a sovereign remedy in typhoid fever; no other one medicament meets so many indications, for internally and externally employed it will relieve tympanites when all other means fail; it is the remedy to prevent or to check hæmorrhage, and its stimulating effect on the kidneys and lungs is salutary. Commencing towards the close of the second week, or earlier if symptoms demand, turpentine may be administered in moderate doses to the close of the disease, with benefit.

The question of a suitable hypnotic must often be considered. The coal-tar derivatives are popular, but a weaker pulse, the beats less distinct and running into each other, will be observed after their use in cases characterized by weak heart. During the third week the condition is often such that one straw's weight cannot with safety be laid against the chances of life. The patient may be suffering from an exhausting diarrhœa, and is also liable to several accidents for which opium is the remedy, hence I prefer to employ carefully selected doses of the deodorized tincture in preference to other hypnotics: moreover, the heart, instead of being depressed, will be rather impressed, and the condition of the patient is altogether more secure. Of course, corrective measures must be employed to secure action of the bowels; and for this purpose an enema carefully administered, or a teaspoonful of castor oil covered nicely in a swallow of cold ginger-tea, is very satisfactory.

A dull, sodden condition, dry, thickly

coated tongue and teeth, a weak or dicrotic pulse, an appearance of unusual general depression, will generally be improved by the use of whiskey; a teaspoonful every three hours in milk may be all that is required to cause considerable improvement in these symptoms, or several times the amount may be required. The effects should be carefully watched and any increase in the amount made with caution, as it is possible to have too much of a good thing. The majority of cases do not require its use, and in such it should be held in reserve.

Weakening of the spine, shown by that unfavorable symptom, slipping down in bed, should be detected at its earliest manifestation, and will be effectually met by nux vomica and attention to temperature.

The condition of the heart must be watched, weakening of the first sound calling for digitalis, nux vomica, or whiskey, individually or combined, according to judgment.

I am given to administering quinine, not as an antipyretic, but in tonic doses, say two grains three or four times a day throughout the disease.

Good, intelligent nursing is of the utmost importance. Seldom in country practice can the assistance of as competent a nurse as would be desired be obtained; it therefore falls upon the physician to direct in detail the care of the patient—bathing, care and disinfection of dejecta, changing of sheets, use of draw-sheets to protect the bed, frequent turning of the patient, avoidance of bed-sores, etc., etc.

As convalescence begins to dawn, the various complications and sequelæ must be borne in mind. Any unusual variation in temperature must be traced to its source; here errors in diet are too frequently the cause to require comment. Frequently a sudden rise of temperature is caused by constipation or retention of urine.

Occasionally is heard the statement that the majority of cases would recover without medication; but it is not for such that we need assistance. Then comes the exclusive treatment by this or that article or method, backed up by the requisite hospital statistics. Without doubt many cases would and do recover without medicine, but such may nevertheless be rendered more secure from acci-

dent and complication by judicious treatment. Then comes a case requiring our utmost skill and judgment. The man who had one hundred cases requiring no treatment is no great assistance or comfort; we sigh once more for the privilege of giving our orders, almost indifferently as to the result. It is then that we learn by experience that more is required of a practitioner than making an accurate diagnosis and elaborating on the revelations of the post-mortem.

The treatment of typhoid fever has of late been so belittled that I almost feel constrained to apologize for this rather detailed and lengthy article, calculated to apply to the various phases and degrees of severity encountered. To relieve any apprehensions, however, that patients may die from treatment, I might modestly add that although I haven't a record of several hundred cases, still during my general practice I have had an unusual number of cases of various degrees of severity, with a record of one hundred per cent. of recoveries.

Tuscarora, N. Y.

THE FOUNDER OF "THE LANCET."

The present proprietors of *The Lancet* have wisely determined to publish a biography of Thomas Wakley on the occasion of the centenary of his birth, and the last issue of the year contained the introduction. As Sir John Erichsen writes, the present generation of medical men know little of the man who exposed and fearlessly attacked the manifold abuses that existed in every department of the profession, in the colleges, hospitals, and medical schools, in the first third of this century. Corruption, jobbery, nepotism, and promotion by purchase, were rife, and Sir John probably speaks for himself also when he says that the reform brought about by Wakley made a William Jenner or an Andrew Clark possible. Mr. Wakley gave up general practice and started *The Lancet*, and we are told that for the next ten years its pages were the dueling ground for a series of fierce encounters between the editor and the members of the privileged classes in medicine.—*British Journal of Dental Science*.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., FEBRUARY 25th, 1896.

Editorial.

THE CATHODE RAYS.

Roentgen's recent discovery is still a matter of chief comment on the part of both the scientific and lay press, and many pathologists and electricians have thereby been stimulated to experiment.

One of the most notable results that have accrued to this discovery is that the rays can be focused, and thereby photographs made instantaneously. This fact was made patent quite unexpectedly and by accident on the 11th instant, at Toronto University. It had been supposed the rays could not be focused and that they could only pass directly from the negative pole to the aluminum plate, and must radiate in all directions according to the degree of electric intensity. On the date mentioned Messrs. McLellan and Wright found it possible, by covering a Crookes tube with a glass bell-jar, to reflect the rays downward, thereby practically focusing.

The value of this discovery can hardly be estimated at the present time, yet it certainly tends to give to Roentgen's experiments a more practical application so far as medicine and surgery are concerned.

The report also comes from Toronto that in the case of a patient who had long suffered excruciatingly in the right foot from a cause which could not be ascertained, it was discovered by the new method of photography that the offending object was a needle, which was then cut down upon and removed.

It certainly is exceedingly rare that such an object as a needle, once buried in the human flesh, is ever removed by operation unless it first appears at the surface.

THE MEDICAL AGE AND BACTERIOLOGICAL SCIENCE.

A correspondent complains that this journal is "inimical to bacteriology" and opposed to "medical progress along the latest lines."

We wish it distinctly understood THE MEDICAL AGE is not, and never has been, "inimical" to bacteriology or opposed to any form of "medical progress." The supposed opposition on any "line" arises, presumably, from the fact that this journal has conscientiously and persistently warned against the blind acceptance of any theory until it has been placed beyond cavil in the domain of fact. It is the acceptance of unconfirmed theories that blocks the wheels of medical progress, and that has in the past brought upon the profession so much of the opprobrium that accrues thereto.

That bacteriology, as a branch of microbiology, is a science both deep and interesting, is a pertinent truth—but its alphabet has hardly as yet been mastered. Its value to medicine lies, not in skimming the general outlines and drawing upon the imagination, but in thoroughly understanding it in all its bearings, relations, and details; and to secure this it is necessary to remember pathology is not bacteriology, neither is bacteriology the essence of pathology, though each may have a very pertinent relation to the other. The error—which is the sole cause of opposition on the part of THE MEDICAL AGE—lies in the supposition that bacteriology *is* pathology, and that the latter can have no existence without the former.

That micro-biology will in the future prove of inestimable value to medicine, is a self-apparent proposition—a proposition evident to the dumbest intellect; but that the bearings and boundaries are yet to be definitely fixed is equally appreciable. The fact must be recalled that the supposed relations between medicine and bacteriology, or between pathology and micro-biology, have already been changed thrice within double the number of years. While not long since in certain circles it was deemed rank heresy to deny that a bacillus was the direct factor in producing a given disease, it was later asserted that the microbe produces a poison that in turn induces morbidity; subsequently, that the mi-

crobe produces a poison and its antidote, and it is the latter doctrine that is now generally upheld. At the same time evidence is rapidly accumulating to the effect that bacilli, far from being promoters of disease, are nature's scavengers, and instead of being foes are our most valuable friends—it is claimed to be susceptible of demonstration that any one form of bacillus cannot live within the human economy until certain pabulum is furnished for its support, and that this pabulum is the direct result of a disease process. If this is true—as demonstrated by Ephraim Cutter and a number of others—the bacillus must be deemed a product, instead of a causative factor, of the disease.

These distinct propositions—not one of which, however, has been satisfactorily placed beyond the realm of doubt—represent in themselves the objections to prematurely accepting either, and to the drawing of deductions in pathology which necessarily lead to greater uncertainty in therapeutics. There is a vast difference between supposition and fact; and while the former may be of value in ultimately securing the latter, it must be borne in mind that experiment is not practice, any more than theory constitutes truth. THE MEDICAL AGE aims solely to keep in mind the foregoing—in other words, it desires to inculcate the old aphorism, "Prove all things, and hold fast that which is good."

Neither is THE MEDICAL AGE a foe to any investigation that is proper within the limits of conservation of life and health. It would encourage every form of investigation that tends to advance science, medical or otherwise, or add to the world's store of knowledge. But the tendency of man is naturally narrow—he is prone to believe but one thing at a time, and to find it all-absorbing. Medicine as a science, however, cannot be bounded by such narrow limits, and it more than any other demands a sweeping of the entire horizon and a bringing of all into definite perspective. Individual theories demand softening and purification by intermingling, trituration, and sifting. It is the "one" idea that has led to schisms—to homœopathy, eclecticism (so-called), hydropathy, etc.—being set up as distinct systems. It is the danger peculiar to popularity and the absorbing interest in the matter for the moment in

hand—of the one idea being made to do duty as a system *per se*, instead of being relegated to its proper place as merely a part of a great unit—upon which we base our objections. It is not bacteriology that we criticise, but the attempts that have been made to apply it in irrational and undemonstrated ways, to the exclusion of physiological bearings and teachings. If physiology is wrong, let us rectify it, and not endeavor to compel both the practitioner and the author to stultify themselves. We only object to recognition of the positive without its accompanying negative, since it is Truth that science demands, and not the upholding at all hazards of individual prejudices or opinions. When these prejudices or opinions are proved, or even reasonably demonstrated, THE MEDICAL AGE will be the first to rejoice and to offer speedy acknowledgment. The position of a medical journal should be one of judicial fairness, and this field we seek to occupy. With individual preferences we have nothing to do, since, as already remarked, these are not Science. Cold, plain facts are every day in demand, and Truth needs neither fear or favor.

Another thing: objection to articles appearing in our Original columns because they do not agree with the theories of some personage, are not pertinent. Here every one has a right to express his opinions, and such expressions are respected if found possessed of sufficient interest or merit to entitle them to place, regardless of any preconceived view, either *pro* or *con*, on the part of the editor.—Fortunately for the world, all cannot see or think alike, and it is by the exploiting of adverse views and opinions that real evidence is secured. Our columns are open to all, without fear or favor, regardless of the ideas expressed, providing the contribution is original, offered exclusively to THE MEDICAL AGE, and possessed of sufficient interest and literary merit.

In this connection we may note that recently two papers were rejected, each devoted to opposite views upon the same subject: one assumed to draw favorable deductions in a precise direction from a single case; the other, unfavorable deductions from three cases. The rejection in both instances was based, not upon the ideas of the authors, but

solely upon the fact that the evidence offered had no direct or pertinent bearing upon the claims advanced. But what was the result? One author believes his paper received no favor because the editor (he imagines) is opposed to the views advanced—which is far from true. Equally wrong was the assumption of the second author, based upon diametrically opposite views.

It is impossible to produce a medical or any other journal to meet the ideas or vagaries of individual readers—any attempt in this direction would result in literary chaos. If one has a direct interest in one branch of medicine, it is no evidence the subject may not possess quite different bearings for another; yet both may have an interest in pursuing and contributing to any one periodical and both together may possess a value that accrues to neither singly.

The creed laid down by THE MEDICAL AGE is, therefore, in so far as possible, complete fairness and exposition of the truth in any way it can be made apparent; unswerving policy negative to the exploiting of uncertain and unknown methods, particularly when such are in the interests of individuals and made at the expense of suffering humanity. And this creed is no more than every patient has a right to exact from his medical attendant. The practitioner has no right to sacrifice everything to his own views or to his own personal aggrandizement: his first duty above all, is the relief of the ill and afflicted

VERTEBRAL PUNCTURE.

Considerable discussion has arisen recently as to the utility of this measure in the treatment of spinal and cerebral conditions associated with increased intra-cranial or intra-spinal tension. Quincke was the first to undertake this procedure, which has of late years been resorted to by a number of practitioners. Chipault recently published a monograph in defense of vertebral puncture upholding the method of Quincke—viz., lumbar puncture. The patient is laid on the side, with the legs flexed, and the needle of a Pravaz syringe is inserted through the third or fourth interspace, so as to tap the membranes beyond the lowest limits of the cord.

The puncture is made about two centimeters from the middle line, in a direction upwards and inwards, and the subarachnoid space is reached at a depth of one-and-one-half or two inches in the adult, and about four-fifths of an inch in a child. Fürbringer reports having made use of this operation in eighty-six cases; in one or two it was followed by some fever, pain, and convulsions, possibly of septic origin; in other cases there was only some sensation of pins and needles in the leg, probably due to the puncture of a nerve-trunk, which passed off in a short time; in the majority of cases, however, there were no unpleasant or dangerous after-effects.

At first it was hoped that great results would follow this new departure in practice, but it is doubtful if a single case has been permanently benefited by it. From a diagnostic point of view, however, it may be of considerable value, and the following facts have been ascertained concerning it:

If a perfectly clear fluid is withdrawn, with no coagulum on standing, it is an evidence of hydrocephalus or of increased pressure due to tumor:

A liquid equally clear, but forming a coagulum, which remains suspended, is suggestive of tubercular meningitis:

A liquid turbid on withdrawal probably results from infective meningitis:

Again, help may be derived by this means in localizing the origin of an intra-cranial hemorrhage: if after a cranial injury in which bleeding is suspected to have occurred within the skull, the fluid withdrawn by vertebral puncture is quite clear, then it is evident that the effusion must have taken place between the dura mater and the skull, or there is a limited sub-dural exudation; if, on the other hand, there is much blood present, a hopeless laceration must be diagnosed, extending probably into the lateral ventricle; while if the fluid withdrawn is but slightly stained, the diagnosis still remains uncertain. Information may also be obtained by a bacteriological examination of the fluid, and Fürbringer has detected the bacillus of tubercle in twenty-seven out of thirty-seven cases in which he undertook this procedure in tubercular meningitis, and thus was enabled to make the diagnosis certain. In this latter affection there is but little probability of a

lumbar puncture doing any good, as the aperture of communication between the cerebral and spinal cavities is small and easily obstructed by inflammatory lymph; in such cases, then, the opening of the cerebral subarachnoid space through the occipital bone, as practiced in the well known case of Ord and Waterhouse, is the only practice which suggests any possible benefit.

SUCCESSFUL LIGATURE OF THE INNOMINATE.

At the Mater Misericordiæ Hospital, Dublin, in January, 1893, Mr. Coppinger performed this operation for the relief of aneurysm of the subclavian. The case was exhibited shortly after before the profession of Dublin, and later at the British Medical Association meeting at Newcastle-on-Tyne. The patient is now fifty-nine years of age, in excellent health, and the only living example—in Europe, at least—of subclavian aneurysm relieved by innominate ligature.

IDIOTS' SKULLS.

Sir George Humphrey reports, after examining nineteen specimens of idiots' skulls, that he is unable to find anything suggesting that deficiency in development is the leading feature in the deformity, or that the smallness of the bony cerebral envelope exerts a depressing or dwarfing influence upon the brain—nothing, in fact, to encourage the practice recently advocated of removing part of the calvarium with an idea of affording more space and freedom for the growth of the brain.

EDITORIAL NOTES.

The Index Medicus.—

The January number of the revived *Index Medicus*, which comprises the literature of December and the beginning of January, has been distributed to subscribers. The "back number," covering the period from May to December, 1895, is ready for the printer, but from its extent will require some time before it can be issued.

It is proper to add that it has been found impossible to adhere to the limited number

of subscribers first proposed, as subscriptions from distant points in response to applications from friends abroad still occasionally arrive. One, for example, was received a few days since from Ceylon.

The Operating-Table.—

Joseph Price has no operating-room or table, a board laid upon two stands placed at the bedside and covered with a sterilized sheet constituting his equipment; yet his results in abdominal surgery have been phenomenal. And Carl Beck asserts that any surgical operation can be performed in the patient's room as well as in a hospital, so complete are modern methods of asepsis.

Legal Decisions.—

The Illinois Supreme Court has decided physicians cannot be compelled to report contagious diseases or render other services to the public without pay.

Also, Judge Taney, of Louisville, Kentucky, recently decided a physician cannot be compelled to attend court unless his fees and costs are first paid by the person desiring his evidence.

Harvard University Medical School.—

On and after June 1st, 1901, candidates for admission must present a degree in arts, literature, philosophy, science, or medicine, from a recognized college or scientific school; also satisfactory proof of a course in theoretical and descriptive (inorganic) chemistry and qualitative analysis.

The sooner other medical schools fall into line, the better.

A Wise Measure.—

The San Francisco City Council has prohibited bicyclists from carrying on their machines any child under the age of six years. This is the outcome of a recent crusade by the Society for the Prevention of Cruelty to Children.

Curious Bicycle Accident.—

A man in Newcastle, England, trying to mount his wheel, missed the saddle, struck his perineum on another part of the machine, and ruptured his urethra, with serious consequences.

Items and News.

Strychnine in Pneumonia.—

In the report of the Surgeon-General of the Navy, made by J. R. Tryon a year ago mention was made of the apparently favorable results of the hypodermatic injection of strychnine in the treatment of lobar pneumonia. In his report just issued, Doctor Tryon says that the favorable opinion entertained of the value of this drug in the treatment of pneumonia has been further strengthened by the experience of its use during the past year. Forty-five cases of acute lobar pneumonia were treated in the Naval Hospital in Brooklyn during the past two years, with but three deaths, a mortality of only six per cent.—*Medical Record*.

Why Medicine is Prescribed.—

To the unprejudiced observer it must be clearly apparent that two-thirds of the prescriptions given by physicians are as harmless as mother's milk; many of them would make devils laugh and angels weep. The doctor is not as much to blame as might be supposed; on the contrary, he is to be commended; the patient very naturally expects to be treated with medicine, and if the doctor does not dose him he is discharged as one who does not understand his business, and some one else is secured who is less scrupulous.—*Exchange*.

Hydrophobia.—

Genuine cases of this malady are extremely rare. From January 1st, 1842 (the beginning of a systematic registration of human death in Massachusetts), until January 1st, 1896 there were only 68 *purported* deaths from rabies in Massachusetts.

This is an average of less than two deaths per year in a population of two and a half millions. One is far more liable to die of sore toe than of hydrophobia; but fear of hydrophobia has killed more people than the disease itself.—DOCTOR A. MORTON, in *Healthy Home*.

Tansy as an Abortive and Poison.—

Doctor G. Jewett gives eight cases in which tansy—usually the oil—was taken with criminal intent or to provoke the catamenia. Death resulted in four of these. The ovum was disturbed in one out of the five cases where it was taken to induce miscarriage, and in this case strong decoction were used *per vaginam*.—*American Medical Review*.

Definitions.—

Albumen: Egg albumin—white of egg.

Albumin: A nitrogenous proximate principle, always containing sulphur; liquid, but coagulating at about 140° F. and in the presence of mineral acids, etc.

Tympanites: Distention of abdomen by gas in the intestines or stomach.

Tympanitis: Inflammation of the tympanum.—*Cleveland Medical Gazette*.

Claimed Test for Insanity.—

Doctor Buxton Ward declares there is one infallible symptom indicating whether one is sane or not. Let a person speak ever so rationally and act ever so sedately, if his or her thumbs remain inactive there is no doubt of insanity. Lunatics seldom make use of their thumbs when writing, drawing, or saluting.

The Munroe Doctoring!—

An Up North Democrat wrote Senator Roach:

All the fools around here are talking about the Munroe doctoring, and nobody knows what it is, and I don't know it myself, but if the government is giving it away send me what you can.

—*Fargo Forum*.

A Superfluous Detail.—

While poring over a receipt book the other day, my attention was attracted by a receipt which ended something like this: "Then sit on the front of the stove, and stir constantly." Imagine sitting on a stove without stirring constantly.—*Harper's Round Table*.

Symptoms.—

The best symptom in any patient is prompt pay; as long as it lasts you need not care what else ails him, unless he is likely to die.—*Medical Record*.

Journal Changes.—

The *Virginia Medical Monthly* will henceforth appear as a *fortnightly*, it is said; and the *College and Clinical Record* henceforth will carry the prefix *Dunglison's*.

Suggestive.—

The business manager of the Amick Chemical Company died of consumption.—*Homœopathic Recorder*.

Nothing New.—

The *Times-Herald* says Commodore Vanderbilt started life "barefooted." So did everybody else.—*Sioux Falls Argus-Leader*.

Book Reviews.

THE AMERICAN GEOLOGIST. Price, 30 cents; \$3.50 per year. Geological Publishing Co., Minneapolis.

"Notes on the Geology of Eastern California," by H. W. Fairbanks; "Association of the Gasteropod Genus *Cyclora* with Phosphate-of-lime Deposits," by A. W. Miller; "The Buchanan Gravels, an Inter-glacial Deposit in Iowa," by Samuel Calvin (plate); "Lacroix's Aërial Goniometer," by N. H. Winchell (illustrated); "Phenomena of Falling Meteorites," by O. C. Farrington; and "Philadelphia Meeting of the Geological Society of America," by W. Upham; constitute the chief characteristics of the February number. There are also the usual Editorials, Reviews, and Personal and Scientific Notes.

THE GLOBE QUARTERLY REVIEW. Price, 50 cents; \$2.00 per year. William Henry Thorne, New York.

No. 21 of Volume VI is before us with an exceedingly prolific table of contents. The most notable papers are: "Why I Became a Catholic;" "England's Younger Poets;" "Thomas B. Reed & Co.;" "The Outcome of Agnosticism;" "Missions and Missionaries;" "German Opera in America;" "Jonathan, John Bull, and Billy Hohenzollern;" "Modern Attacks upon Property;" "Thomas Hood;" "Past, Present, and Future;" "The Landlady's Daughter;" and four papers upon the "Negro Problem."

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing Co., New York.

The February issue is replete with suggestions for the household. Of particular interest are the items under "Amateur House Decorations" and "Furniture and Furnishings." The paper on "Remodeling Commonplace Homes" will come home to every reader.

There are also the interesting departments devoted to Pottery, Porcelain and Glass Decorations, Carpetings, Mural Decorations, Library, etc.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. The Transatlantic Publishing Co., New York.

The December number is before us and contains a paper on "Skiascopy," by Doctor Bardelli; "Notes on the History of Cataract Extraction," by D. E. Sulzer; "Traumatic Hernia of the Orbital Lachrymal Gland," by

J. Bistis. There are the usual Reports of Societies, Reviews, Ophthalmological Societies, Book Notices, and Miscellany.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 a year. W. T. Comstock, New York.

The papers in the issue of February 8th are: "The Success of the Bond Issue;" "Efforts to Check Consolidation;" "Heavy Framing in Wood and Iron;" "The Proper Arrangements of Water-closet and Bath Apartments;" "Græco-Phœnician Architecture in Cyprus." There are the usual departments.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Co., New York.

The current issue contains: "The Holy Trinity of Science;" "Sympathetic Vibration in Nervous Attraction;" "An Imaginative Man;" "Fire Philosophy and Being;" "Mental Attention;" "The Voices of Nature;" and the usual departments.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 20 cents; \$2.00 a year. Joseph W. Kay, New York.

In the current issue is published the first installment of "Eminent Living Artists," a serial from the French of Victor Cherbuliz, a continuation of "From Cuxhaven to Constantinople," "Men and Women of the Hour," and "At the Play."

AN AMERICAN TEXT-BOOK OF OBSTETRICS. Edited by Richard C. Norris and Robert L. Dickinson. Cloth; quarto; pp. 1009. Price, \$7.00. W. B. Saunders, Philadelphia.

In this work the editors have had the collaboration of Doctors James C. Cameron, E. P. Davis, Charles W. Earle, J. H. Ethridge, Henry J. Garrigues, Barton Cook Hirst, Charles Jewett, Howard A. Kelly, C. D. Palmer, Theophilus Parvin, G. E. Piersol, Edward Reynolds, and Henry Schwarz. The result is just what would naturally be expected—a most magnificent and complete text-book, the value of which is greatly enhanced by 900 colored and half-tone illustrations. The especial design in preparing this volume was to make clear those departments of obstetrics that are at once so important and usually so obscure; therefore the emergencies and mechanics of normal and abnormal labor, and the various manipulations required in obstetric surgery, are all described in great detail, the text being carefully elucidated with most superior illus-

trations and diagrams. The diseases of the fœtus and of the new-born are given separate sections, being discussed more fully than in any previous work of the kind. One of the just claims to originality of the work is the attempt made to carry out systematically the following principles in illustrations: All figures drawn to scale; uniform scale adopted of either one-third or one-sixth life size; in sagittal sections the same half always to be shown for the purpose of comparison; full labeling directly on the drawing, which is given such artistic treatment as is compatible with clearness and teaching qualities. Some of the finest pathological specimens in the Army Medical Museum at Washington were specially photographed for this work. Only through an unprecedented liberality on the part of the publisher is it possible to so thoroughly illustrate an entire department of medicine. The volume is an exposition of only the latest ideas in pathology, and the directions for treatment are particularly full.

PEDIATRICS—THE HYGIENIC AND MEDICAL TREATMENT OF CHILDREN. By Thomas Morgan Rotch, M.D. Cloth; 8vo; pp. 1124. J. B. Lippincott Co., Philadelphia.

This is the most important work which has appeared in the United States during the last quarter of a century—indeed, we may say it is the only truly original work from an American pen during that period.

The author has made no attempt to make classifications, but begins with a consideration of the infant at birth, and follows it through its various stages of development, through health and disease, up to puberty. After dwelling at length on normal development—which is treated much more fully than has heretofore accrued to works of this class,—the abnormal conditions are discussed. Beginning with the maladies which would naturally be met with in the early periods of life, and devoting considerable space to observations on the circulation of infants and young children, the diseases of the different organs are considered in detail. Further, with the exception of a few rare maladies of which it was impossible to secure satisfactory examples, the illustrations represent actual cases that have never before been published; and the colored illustrations are from life, the patients having been seen personally by the artist in order to secure the utmost accuracy. The author, moreover, believes that the medical treatment of various abnormal conditions arising in infants is in the future to be largely dietary rather than by means of drugs, and hence he has given

unusual—but none the less essential—prominence to the subject of feeding. Finally, the nomenclature is simplified and revised, making the work as a whole the most practical of any upon this subject that has ever yet emanated from the press. Indeed, a review is inadequate to do justice to the superior merits of this volume.

MYSTERIA. By Doctor Otto Henne Am Rhyn. Cloth; 12mo; pp. 240. Price, 75 cents. J. Fitzgerald & Co., New York.

This exceedingly interesting work is a history of the secret doctrines and mystic rites of ancient religions—Eleusinian, Dionysiac, Orphic, etc.—and mediæval and modern secret orders such as Knights Templar, Freemasons, Rosicrucians, Illuminati, etc.

On several accounts this book invites especially the favorable attention of the Masonic fraternity, as well as other secret orders, but its message is by no means confined to this class—it is addressed to curious phases of psychology, viz., the love of mystery as exemplified in the cryptic teachings and secret rites of past civilizations. Although the volume is comparatively small, it is a very complete and concise account of all that can be embodied under the title of mysteries. The first part is devoted to the Mysteries of the East and Barbarous Nations—of Egypt, Babylon, Nineveh, Persia, and India; Part Second is devoted to the Grecian Mysteries and the Roman Bacchanalia; Part Third to the Pythagorean League and other Secret Associations; Part Fourth to Hellenism and Judaism, the Essenes, Christianity, and the Church; Part Fifth to Pseudo-Messiahs and Prophets; Part Sixth to the Knights Templar; Part Seventh to the Femgerichte; Part Eighth to Stonemasons' Lodges of the Middle Ages, Astrologers, and Alchemists; Part Ninth to the Rise and Constitution of Freemasonry; Part Tenth to Secret Societies of the Eighteenth Century; Part Eleventh to Illuminati; Part Twelfth to Secret Societies of Various Kinds.

THE INVISIBLE PLAYMATE. By William Canton. Cloth; 24mo; pp. 95. Price, 75 cents. J. Selwin Tait & Sons, New York.

This exceedingly quaint and pathetic tale made considerable of a sensation in London through the prominence given it by Andrew Lang. The story is that of a father who is passionately attached to his child, who during play continually cautions him not to hurt the little girl whom, to all appearance, she is in the habit of holding in her arms. This he imagines to be "make-be-

lieve" play, but when the child is dying she says she has his little girl safe, and for one brief moment the curtain is lifted and he sees his long-dead little one resting in the arms of the dying child; the inference being that all along the child was conscious of that other presence which he was only permitted to see once. The story opens up the question whether childhood, by a closer touch with the invisible, can see things denied to those of maturer years.

There is consummate art in the framing of the story, and the skill which can create so tremendous a *denouement* out of the humble material employed is not unworthy of an Ibsen.

A sister of the reviewer, in her childhood, had an "invisible playmate," and though she is now grown up and well on toward middle age, this playmate even to-day in her memory is *real*.

MICROBES AND DISEASE DEMONS. By Edward Burdoo, L.R.C.P. (Ed.), M.R.C.S. (Eng.). Paper; 12mo; pp. 93. Price, 1 shilling. Swan, Sonnenschein & Co., London.

This volume is an endeavor to give the truth regarding the new treatment of diphtheria, and is a very complete *résumé* of the microbe theory of pathology. Doctor Burdoo holds it can never be "true scientific medicine to pour poison into the blood-current to counteract another poison; you may in one sense convey an antidote, but you *may* work untold mischief by ignorant meddling—which we have no means of combating. There is at present a perfect passion for experimenting on animals, with the hope of placing the healing art on a more scientific basis. The medical profession is dominated to-day by a powerful school which confessedly does not hold it to be the physician's duty in the first place to cure his patient, but rather to advance his art." Doctor Burdoo goes very critically into an analysis of the statistics of diphtheria and the fallacies of statistics generally, and gives evidence to show that as far as the infant mortality of diphtheria is concerned, it is less in England by ten per cent. under classical methods of treatment than under the use of serum.

Those who desire to thoroughly understand both sides of this moot question will find it greatly to their advantage to peruse this brochure.

JESUITS. By Doctor Otto Henne Am Rhyn. Cloth; 12mo; pp. 250. Price, 30 cents. J. Fitzgerald & Co., New York.

The occasion which called forth this scholarly work was the agitation in Germany for

the recall of the Jesuit Order. The book is designed to show what the effects of Jesuitism have been in all countries since the order was founded. The material is drawn exclusively from authentic Jesuit and Roman Catholic sources—the constitution of the order, writings of Jesuit theologians and moralists, decrees of Popes, and acts of Catholic governments. The chapter on the Moral Doctrine of the Jesuits is specially noteworthy. In the same chapter, the teaching of many great Jesuit theologians regarding the lawfulness of the use of equivocation, even by witnesses under oath in a court of justice, is cited, chapter and verse. The Jesuit principle of "Probabilism" is also very fully treated. The claim of the Jesuits that their education is more consonant with the spirit of the Christian religion and better qualified to promote mental development than secular and Protestant universities, is shown to be without foundation.

A TREATISE ON NERVOUS AND MENTAL DISEASES. By Landon Carter Gray, M.D. Cloth; 8vo; pp. 728. Price, \$4.75. Lea Brothers & Co., Philadelphia.

This work is an illustration of the fact that a large and well selected fund of information can be compressed into convenient space without in the least injuring its value. It requires a thorough grasp and great literary skill to handle two such subjects as nervous and mental diseases in so small a space as Doctor Gray has done, yet their very close relationship demands that they be treated in conjunction. The peculiarities of this class of maladies, as met with in North America, owing to climate and social conditions, make actual experience a prerequisite to teaching and authorship; and Doctor Gray represents the most advanced thought in what has been termed the American School of Neurology. His success in this direction is moreover abundantly verified by the fact that the volume is in its second edition, and that the first was exhausted in a period of less than two years. The illustrations include many photographic portraits and instructive diagrams beside those in colors.

OUR ANIMAL FRIENDS. Volume XXII. Cloth; quarto; pp. 286. Price, \$1.50. The American Society for the Prevention of Cruelty to Animals, New York.

This publication is doing good work in exciting sympathy for and interest in the brute creation, and we cordially recommend it to every household. Not alone is it full of interesting details regarding different forms of

animal existence, with incidental references to outdoor life, but it is a practical text-book of natural history suitable to place in the hands of both young and old. We especially call attention to the initial chapter in the November issue entitled "Rules for the Treatment of Animals"—it would be well if these could be printed and posted in every public place. Although the medical profession is in a measure committed to vivisection, we must admit that a great deal of what passes under that name is of no earthly use to science, but on the contrary tends to degrade the human mind. While *Our Animal Friends* is sometimes perhaps extreme in its strictures on vivisection, the principles it advocates are wholesome and most beneficent.

A TEXT-BOOK OF PRACTICAL MEDICINE. By Alfred L. Loomis, M.D., LL.D. Cloth; 8vo; pp. 1134. Price, \$6.00. William Wood & Co., New York.

The reception which has always been accorded this work is evidence that a new edition is welcome—particularly as the volume represents the personal experience of its author, and not a collation of the opinions of others. Doctor Loomis was one of the few men who could not and would not accept results until they had stood the test of time and experience.

In this new (eleventh) edition, the chapters on diseases of the heart and lungs have been rewritten, and arrhythmia, tachycardia and brachycardia added to the list of cardiac neuroses. The classification of the pleurisies has also been altered. Dysentery has been placed among the infectious diseases; acute infectious jaundice added as a disease *per se*, etc. The section devoted to diseases of the nose and throat has been likewise largely rewritten, and many changes and emendations made in the section devoted to nervous diseases.

NORMA TRIST. By J. W. Carhart, M.D. Paper; 24mo; pp. 255. Price, 50 cents. The Norma Trist Publishing Co., La Grange, Texas.

This is the only work that has thus far appeared in American fiction devoted to sexual, psychical and affectional abnormality, although several have emanated from both French and German sources. The author has presented plain facts in so far as possible in an unobjectionable manner; and although there is no allusion to the murder of Freda Ward by Alice Mitchell, it is apparent that the sexual aberration presented in this legal case was the foundation of the tale. Medical men will be especially interested in the volume.

Therapeutic Brevities.

The Abuse of Quinine.—Quinine is one of the greatest blessings and a peerless specific in malarial fevers; yet malarial fever should be carefully distinguished from other pyrexias before resorting to this agent. Distinct rigors followed by fever, and recurrence with well timed intermission, will more or less put the practitioner on the alert. Its administration in every kind of fever, when the temperature has been brought low by other antipyretics, should be condemned. Careful observation shows that in many cases of fever, quinine raises the temperature immediately after its administration.

The abuse of quinine reaches its climax when its heroic admirers, believing the manifestation of all its physiological symptoms to be the surest indication of its clear action, push it to such a dangerous extent as to produce deafness and dullness of general perception. Several painful cases have come under observation in which the bright and intelligent expression of the face had been changed by quinine to a dull and vacant gaze. The susceptibility of some patients is so great that a few grains completely upset them, producing a series of symptoms which alarm the patient and puzzle the doctor. It is also a scourge in the hands of the native doctors, whose ignorance of diseases assumes a dangerous shape when armed with a weapon which, though invaluable in itself, requires much caution in its use.

Owing to the abuse of this drug, it is hated and feared by the natives, who attribute all sorts of evil qualities to it. Many of them who place themselves under the treatment of English physicians make it a condition that quinine is not to be administered.

In the weak and debilitated, when nerves are exhausted and excitable, the quinine, which is administered when the temperature is low with the idea of fixing it, often acts so quickly as to produce all the symptoms of quininism, which are completely overlooked by the prescriber, who still pushes the drug. Administering quinine even in malarial troubles of long standing requires caution, as a large quantity in a patient who is already bloodless tends to destroy the few scattered surviving red corpuscles, making his case less hopeful and more difficult.

If the weak, fluttering heart, the want of assimilative power, the anæmic condition and the state of the liver and kidneys are attended to, only very small doses of quinine will be required to bring about astonishing results, and in many cases the fever will leave the

patient if the foregoing conditions are treated without resorting to the employment of this drug.—DOCTOR JAMES HARRIS, in *Indian Medical Record*.

Chlorosis.—With careful attention to diet, and a tepid sponge followed by brisk toweling both night and morning, the late Sir Andrew Clark recommended the following to be taken twice a day:

℞ Dried sulphate of iron, 24 grains.
Epsom salts, 6 drachms.
Aromatic sulphuric acid, 1 drachm.
Tincture ginger, 2 drachms.
Infusion of gentian and quassia, 8 ounces.

One-sixth part to be taken twice daily, about eleven and six o'clock.

Occasionally this acid mixture produces sickness, dries the skin, and is otherwise ill borne, when other remedies must be selected, preferably:

℞ Dried sulphate of iron, 24 grains.
Bicarbonate of soda, 2 drachms.
Glauber salt, 6 ounces.
Tincture ginger, 6 drachms.
Spirit of chloroform, 1 drachm.
Infusion of quassia, 8 ounces.

One-sixth part twice daily, at eleven and six.

Sometimes neither mixture agrees, when sulphate of iron in pill with meals, and a saline aperient on first waking in the morning, may be substituted. By this plan Sir Andrew held that nine out of ten cases of chlorosis recover in from one to three months, and by careful attention to the bowels, taking twice a week a pill composed of aloes, myrrh, and iron, the recovery will be permanent.—*Lancet*.

Solanum Carolinense.—Doctor J. W. Marcy treated eight cases of trismus neonatorum, in a colored settlement where there was no attempt at cleanliness nor any attention paid to hygiene. First was given a dose of castor oil, which moved the bowels freely; then, if the kidneys did not perform their part, minute doses of pilocarpine hydrochlorate. For the spasmodic condition, tincture of Horse nettle was given in seven-drop doses every three hours, then every two hours, finally increased to fifteen drops every two or three hours, or sufficient to produce sleep, which would last two or three hours. With a good *Solanum*, intelligent nursing, and good hygiene, he believes many more children might be saved.—*American Journal of the Medical Sciences*.

Viburnum Prunifolium in Dysmenorrhœa.—Doctor Theodore Sherman declares this drug

diminishes reflex pain, lowers blood-pressure, and acts as a uterine sedative. It is of great value in certain forms of dysmenorrhœa, in threatened abortions, etc. Doctor William Craig has for years maintained in his lectures its pre-eminent value in abortion, and has used it in his practice. Professor A. R. Simpson has frequently used it with good effect in certain cases of early abortion, and in dysmenorrhœa of non-obstructive form. Doctor Haultain says it is a direct uterine sedative and of value in the first stage of labor, in after-pains, in dysmenorrhœa with clots, and in abortion where there is pain and a little hæmorrhage. — *British Medical Journal*.

Hydrocyanate of Iron in Epilepsy.—To place epilepsy, without any qualifications, in the category of nerve disease, has led to sad error in its treatment, as may be seen every day on our streets and in our institutions. The mental disturbance and decay which are the legitimate results of the disease are only hastened by the inordinate use of bromides, etc. Let it be understood that the initiatory steps are to remove all troubles of digestion, regulate diarrhœa by some vegetable astringent, or constipation by an aperient; also correcting all other known functional derangements.

I have used hydrocyanate of iron in many cases, with great satisfaction.—A. F. PATTEE, in *Journal of Materia Medica*.

Placenta Prævia.—Wilmot Moore tells of a lady whom he attended in three cases of placenta prævia, with dead fœtus; in all she made good recovery. One year, one month and three days after the last case the lady gave birth to a fine boy, and in due time this was followed by two others, all living. The sole remedy in each instance was the "valuable, but sadly neglected" *Erigeron canadensis*. "This," he says, "was my sole reliance, and has been my trusted remedy in all cases of active uterine hæmorrhage for a period of more than thirty years, and I am glad to record the fact that all such cases in my care have been conducted to a successful termination." The foregoing is well worth bearing in mind.—*Medical Recorder*.

Calomel Subcutaneously.—Blend with sterilized oil, observing every precaution to prevent infection with the needle:

Use a long, strong needle, and inject the fluid deeply into the tissues of the right loin. —No suppuration or nodosities follow:

The maximum dose by this method is one grain.

Thus the patient may be spared the pain and inconvenience of stomatitis, and the action of the drug is more energetic and decisive.

This form of administration should, however, be reserved for specific disease, or when it is necessary to quickly charge the system with the medicament.—DOCTOR LAVALLE, in *Revue de Thérapeutique*.

Diet in Diabetes.—For a long time there has been a growing sentiment throughout Germany that diabetes has not been properly treated. Hirschfeld says he believes that diabetic coma is favored by the exclusion of carbohydrates from the diet. Schmitz allows his diabetic patients a small quantity of albumen, while he orders the free use of food containing starch and fat in large amount. Grube impregnates the system with carbohydrates. Williamston, of Manchester, says that home-made bread is much better than specially prepared diabetic bread. A number of American physicians are following this line of treatment with better results than they have had heretofore.—*National Medical Review*.

Exophthalmic Goitre.—Doctor Dixon L. Moore, in the *Columbus Medical Journal*, recommends sodium phosphate. In four cases there was rapid subsidence of all annoying subjective symptoms and gradual diminution in the size of the thyroid. In one instance improvement began immediately and in less than two months the patient was practically well. In the other three, improvement of objective symptoms was more gradual, and though not permanently cured the patients were at once made comfortable by the relief of tachycardia and sensations of heart; when last seen there was a marked decrease in the struma and exophthalmos.—*Maryland Medical Journal*.

Epithelioma.—Doctor John A. Wyeth is an enthusiastic advocate of Marsden's Paste, which is composed of two drachms of arsenious acid, eighteen grains cocaine muriate, and one drachm powdered gum arabic; the whole is rendered paste-like by the addition of water just as it is to be used. It should be of the consistence of rich cream, applied on a small piece of cloth, and left on from eighteen to thirty-six hours—repeated if necessary. The strength may be decreased one-half in arsenic and one-third in cocaine, as needed.—*Atlanta Clinic*.

Methyl Chloride against the Falling Out of Hair.—I have employed compressed methyl-chloride to promote the growth of hair, in the hope the rapid cooling off of the tissues of the scalp, and the attending stimulation of the vital functions, would give new life. The experiments bore out expectation. On spraying, once a week, a small quantity upon the bald spots, I observed after the fourth application that the hairless portion of the head became again covered with a fine growth, and that the falling out had diminished considerably.—DOCTOR TSAKIRIS, in *Pharmaceutische Zeitung*.

Carotid Aneurysm.—Two cases of aneurysm at the root of the neck, both right-sided, came under the notice of Doctor S. Solis-Cohen. Treatment consisted in rest and the administration of sixty grains daily of hydrated chloride of calcium. Marked improvement occurred in one case—the same as was observed in a case of innominate aneurysm that came under the Doctor's care two years ago. In the other case no change has yet been noticed.—*Philadelphia Polyclinic*.

For Ringworm.—

R Rectified spirit, 3 drachms.
Iodine, 10 grains.

Dissolve, and add:

Collodion, 1½ ounces.
Venice turpentine, 24 grains.
Castor oil, ½ drachm.

Apply for three or four successive days. Remove in fifteen days, and wash with perchloride solution (1 in 500).

—*Annales de Dermatologie et de Syphiligraphie*.

Clamp and Cautery in Treatment of Hemorrhoids.—The clamp and cautery offer certain advantages: The operation can be performed expeditiously and with little loss of blood: The cauterized base of the pile is rendered aseptic by the cautery: No pain follows the operation: Retention of urine is extremely rare: Convalescence is brief and uninterrupted,—confinement in bed from three to seven days is sufficient.—TROWBRIDGE, in *Boston Medical and Surgical Journal*.

Indigestion of Starchy Foods.—The diagnosis of this condition rests upon flatulence—a sensory phenomenon,—constipation, general systemic disturbance, and urinary examination. In treatment, it is especially impor-

tant to have thorough mastication of food; drink at meals and much fluid food should be interdicted. It is important to avoid fluids at meals in order to allow the saliva to partly digest the starchy food.—DOCTORS WILCOX and BULKLEY, in *Medical Record*.

Treatment of Sciatica with Nitro glycerin.—Doctor W. C. Krauss treated seven cases of sciatica with Nitro-glycerin—three in private practice,—large doses being used, perfect relief accruing in from two weeks to three months. While the remedy is not a specific, it deserves to be tried before other measures, to be replaced if it fails. Congestive headache and flushing of face, which large doses are apt to cause, can be prevented by bromides.—*Medical Record*.

Thymol Hypodermatically.—Doctor Hermite calls attention to the fact that the large amount of alcohol required to dissolve Thymol will render a solution painful as well as make it more expensive. By dissolving in a little water, slightly warmed, equal parts of tartaric acid, caustic soda, and thymic acid, and adding water up to 2000 parts, a colorless and perfectly limpid solution is obtained.—*American Journal of the Medical Sciences*.

Brewers' Yeast in Diabetes.—At the French Congress of International Medicine, Cassaet reported good results obtained in diabetes by administration of brewers' Yeast in daily doses of one and one-half ounces. It is readily taken, tolerance being soon established. The weight of patients increased three to eight pounds in a fortnight; strength also increased. The proportion of sugar diminished two-thirds to three-fourths in a fortnight.

Herpes Zoster.—For the pain which so often accompanies this affection, Doctor Cantrell prescribes, in milder cases, an ointment of Bismuth subnitrate in the strength of thirty grains to the ounce of base; but when the pain is very excessive, application is made of about one grain of morphine to one ounce of collodion, and the parts anointed or painted three or four times daily.—*Philadelphia Polyclinic*.

Chloroform in Labor.—Do not be afraid to use Chloroform all through the period of labor. The heart of the woman at full term is peculiarly adapted to stand it, and extreme

pain produces nerve-exhaustion, prevents proper recuperation, damages the quality of the milk, retards the removal of debris from the pelvis, and produces susceptibility to disease germs.—*Medical Times*.

Gastritis of Drinkers.—

B Chlorine-water, 8 parts.
Decoction of marshmallows, 165 parts.
Sugar, 8 parts.

A tablespoonful every two or three hours.

The gastritis will be relieved, appetite restored, depression removed, and the desire for drink banished.—ZEDEKER, in *Le Courrier Médical*.

Incessant Cough of Measles.—

B Extract hyoscyamus, 9 grains.
Distilled water, 10 ounces.
Syrup, 10 drachms.

A teaspoonful every two hours.

—WIDERHOFER, in *Gazette Hebdomadaire de Médecine et de Chirurgie*.

Dysentery.—In the Dutch East Indies, Iodoform injections are employed for dysentery. These consist usually of iodoform 46 grains, gum-syrup 52 drachms; for three injections—morning, noon, and night. As soon as the number of stools has diminished, the iodoform is discontinued, as it is no longer efficacious.—*Universal Medical Journal*.

Alcoholism.—The following is credited to Doctor Aitken:

B Powdered capsicum, 24 grains.
Quinine muriate, 36 grains.

To be made into twelve pills. Take one before each meal for several days.

—*Druggists Circular*.

Ulcers.—Chauffard has, for five or six years, employed powdered Sugar in dressing leg-ulcers, dusting the wound with it and covering with oiled silk, renewing the dressing every two or three days. Cicatrization takes place rapidly and aseptically.—*Le Bulletin Médical*.

Remember.—In cerebral hæmorrhage the onset is sudden and the consciousness lost; in cerebral embolism, onset not quite so sudden, consciousness not lost; thrombosis, on-

set more gradual, consciousness not lost, attacks preceded by headache.—DOCTOR GOWAS.

Menorrhagia.—Five minims of oil Erigeron administered every three or four hours has often proved most serviceable in obstinate cases of menorrhagia. It is best given in capsule, or on a piece of loaf sugar.—*American Medical Journal*.

To Stimulate the Heart.—The application of heat over the heart, and application of hot and cold water to the spine in rapid alternation, is a much more effective means of arousing to activity than the administration of alcohol.—*Exchange*.

Liniment for Burns.—

B Menthol, 1 part.
Iodoform, 1 part.
Glycerin, 100 parts.

—*Pharmaceutische Zeitung*.

Salix Nigra.—Doctor E. M. Hale, author of "Practice of Medicine," recommends the tincture of the buds of Black Willow as an excellent sedative to the uterus and ovaries, and claims it is superior to the bromides.

Local Remedy for Psoriasis.—Doctor L. D. Bulkley recently called attention to Permanganate of potassium, one- to two-per-cent solution, as a means of relieving local pruritus.

Renal Colic.—Tincture *Eryngium aquaticum* in five-drop doses three times a day, will afford prompt and wonderful relief.—*Medical Century*.

Ipecac and Aloe.—Two grains of Ipecac mixed with an Aloetic dose will prevent its irritant action on the rectum.—*Medical Summary*.

Apomorphia.—Never use this drug when it has acquired a greenish tinge. The pure drug is snow-white.

Catarrh.—Chronic catarrh of the mucous membrane is often relieved by alkaline diuretics.

Senna.—This drug is valuable in the incontinence of urine of locomotor ataxia.

Medical Progress.

CASE OF PARAFFIN ACNE.—The occurrence of a so-called acne as the result of working in paraffin has long been recognized; but the cases are not of *very* frequent occurrence, and I have been unable to find any detailed description of it in English literature. Ogston, of Aberdeen, described cases in the *Edinburgh Medical Journal*, December, 1871; and Joseph Bell, in August, 1876, referred to its occurrence in company with paraffin epithelioma. Not infrequently it has been described in German works on dermatology. In the patients from observation of whom these notes are derived, the disease had very marked characteristics. They were boys employed in winding iron wire that had been hardened in a paraffin bath, and their clothes, especially their trousers, were saturated with the oil.

Clarke, aged thirteen, was admitted to the Sheffield General Infirmary for an injury to his eye, and it was while under treatment for this that the rash was noticed. The patient said it began to trouble him about a month after he began to do his present work; was exceedingly irritable for a time, but latterly had not been bad. The distribution was noticeable, for on covered areas it was confined almost entirely to parts where the friction of his clothes was pretty constant—*e. g.*, the back of the calf and outside of the leg to above the knee, the inside of the knee and thigh, the buttocks, the waist and groins; and on the arms to a line which marked the site of his rolled-up shirt sleeves, especially on the extensor side. These areas exhibited the eruption in every stage of development, as well as innumerable fine cicatrices of past attacks. The earliest lesion showed as a black plug in a dilated follicle, more marked than the plug of the ordinary comedo, blacker, larger, and more deeply seated. Then there were many instances of this plug in a dilated follicular opening occupying the summit of a hard, horny papule; in the next stage the papule is inflamed and is surrounded by an erythematous zone. Instances of this were very numerous; less so, but still plentiful, were the extreme result of the folliculitis, a number of small fleshy exuberances projecting from the openings of follicles—moist, pink, but not particularly painful, some undergoing atrophy. No special treatment was advised, but the boy was kept in bed because of his eye trouble. It was noticed that the eruption gradually faded away. Indeed, another subject of the disease, a fellow-worker, said that he could always cure him-

self with soap and water. Clarke, after being at work again for about six weeks, reported the eruption was coming again.

It will be interesting to follow the history of these cases and see if in any of these tumors we get an epitheliomatous growth equivalent to the paraffin scrotum noticed in the shale-workers in Scotland. At present there is no indication of such change, but the subjects are all boys, and so not the most favorable cases to expect it in. In Doctor Bell's case the exposed areas were most affected; in these the covered friction areas were very markedly more affected than even the exposed arms.—W. D. JAMES, in *Quarterly Medical Journal*.

WATER VS. ATMOSPHERE AS A CAUSE OF MALARIA.—Doctor J. B. Cowan, of Tullahoma, Alabama, relates the histories of cases in which water from clear springs had evidently been the cause of malarial fever; in almost every instance where well water and spring water had been abandoned for cistern water, malarial fever disappeared. In a village which was supplied by well water, all the inhabitants were taken sick, with the exception of one family, who had used other water. So many instances of a like nature have come under his observation that he invariably changes the water in such cases. If sterilized water were used, he thinks, malaria would be unknown.

Doctor E. T. Camp does not agree with the foregoing; while some of the poison may be absorbed through water, he believes that in the tropics malaria is mainly contracted by sleeping in the open air.

Doctor Bogart thinks that while water is one of the means of introducing the poison into the system, there are others.

Doctor Abernethy says: "When there is a wet summer, there is not much malarial fever. Dr. Cowan seems to prove that the disease is introduced by water, but, if so, why do we not have it every year, and why do we not have it all the time? The old theory is that it is due to heat, moisture, and decomposition; and Bowling's theory attributes it to water which has been confined so as to prevent evaporation. At present it is said malaria is due to a germ. Whichever theory is correct, it is true nineteen-twentieths of the diseases of the West and South are due to malarial infection."

Doctor Cowan rejoins that the reason the disease does not appear every summer is that the heat does not develop the germ. He thinks all cases of malignant malarial fever are due to drinking-water, since in some parts

of the South where the disease had formerly been prevalent it is now unknown, and this has come about by the use of cistern water.—*New York Medical Journal*.

GONORRHOEA IN THE FEMALE.—Gonorrhœa in women, as in men, consists of an exudative inflammation of the sub-mucous connective tissue, and the genital organs of women are so extensive, complex and involuted, and so profusely supplied by blood-vessels, which frequently undergo normal engorgement, that it can readily be understood why the morbid process may show a tendency to become chronic and lurk and hide. There has been a proneness developed, within the past ten years, to refer, in a loose and unscientific manner, all female ailments to gonorrhœa and attribute to many husbands, who in early days had been indiscreet, a gonorrhœal infection of their wives, which produces serious consequences. The extreme and exaggerated views of Noeggerath, who claimed that 800 out of every 1000 men living in large cities suffer from gonorrhœa, which they have never recovered from, and who, on marrying, sooner or later infect their wives, have done much to perpetuate these ideas. There is a tendency now-a-days to harp upon the longevity of the gonococcus, its phoenix-like power of resuscitation, and its relentless virulence. This idea, put forth by some syphilographers, has had undue weight with many gynæcologists, who, under its influence, are led to think that the gonococcus in the male and female never dies, and is ever ready to produce pelvic mischief. I have seen many young women who have suffered from uterine and pelvic disease after marriage, whose trouble was induced by instrumental manipulation at the hands of energetic young men possessed of an ambition to be known as gynæcologists. Minor surgery is certainly the cause of a great many cases of uterine and pelvic disease. In estimating the importance of gonorrhœal infection as a cause of female trouble, we must individualize, rather than generalize.—R. W. TAYLOR, in *Charlotte Medical Journal*.

CYSTICERCI IN THE HUMAN SKIN.—Lewin has drawn attention to this occurrence, which is not of extreme rarity. The *Cysticercus cellulosa* is the larval condition of a tænia which has its habitat in the small intestine, and whose eggs contain numerous embryos of future cysticerci. Infection can take place either directly from the ova of tænia in one's

own intestine, or indirectly from those from another. The auto-infection is denied by some, but Lewin reports a certain number of cases which show that the coincidence of the tænia solium and the cysticercus in the same person is not accidental. The symptoms arise slowly in the skin as the volume of the parasite increases. Those affected complain usually of sensory disturbances, of weariness and fatigue, accompanying movements of the parts implicated; the capillary hæmorrhages observed are due to a degeneration of the vascular walls. The mobility of the cysticercus imbedded in the subcutaneous tissue, and surrounded by a connective-tissue capsule, gives rise to an inflammatory reaction of a more or less marked type. The tumor formed by the cyst may be either prominent or not; is round or oval, and of almost cartilaginous hardness. The parasite may be solitary, or present in numbers. Positive proof is obtained by extirpation, as for an atheroma.

Cysticerci may be mistaken for numerous kinds of tumors—fibroma molluscum, atheromata, boils, and abscesses. The determination of their presence in the skin has frequently a decisive importance for the diagnosis and treatment of diseases of internal organs. In particular, the diagnosis of cysticerci in the brain may be made from their discovery in the integument.—*Archiv für Dermatologie*

SPINAL APOPLEXY.—A mason of sixty-one years, with a good family history and no signs of syphilitic individual antecedents, but who drank a pint of brandy daily, had been ailing for four years. One day in 1890, while chopping ice in his yard, he was overpowered by a sense of giddiness, and lay down. In a short time he attempted to rise, but found it impossible. For fourteen days he lay in this state. His four extremities were anæsthetic—his arms and legs hung as of lead from his body, and no movement was possible; a painful constrictive feeling in his abdomen "as from a strap;" obstinate constipation and paroxysmal pains in the abdomen, often associated with vomiting; urination slow and difficult. In three months these symptoms had gradually disappeared, so that he could get out of bed, but he was compelled to hold on to things; sensation and motion had so far returned that he could hold a spoon; the "girdle pains," vesical and intestinal disturbances still remained; he presented great general emaciation of the lower extremities, painfulness to pressure of the abdomen, patellar reflex absent, cremaster and foot-sole reflex slow, a moderate degree of arterio-sclerosis; n

signs of tabes; internal organs healthy, as well as the cranial nerves. It appeared to be a case of spinal apoplexy occurring into the meninges and with a vast hæmorrhage.—DOCTOR GOEBEL, in *Münchener Medicinische Wochenschrift*.

APPENDICITIS.—Let me emphasize—make our classification of appendicitis as simple as possible. We have, first, acute perforative appendicitis; second, catarrhal appendicitis, due to the *Bacillus coli communis*, possibly to some traumatism, possibly to some foreign substance, relapsing in its character, one or more attacks occurring, with shorter or longer intervals,—some cases accompanied with supuration and abscess, within or without the peritoneal cavity, and some resulting in perforation, causing death very much as do those in the first attack of acute perforative appendicitis. The diagnosis in any event should be made as clearly and distinctly as possible, and the earlier the better. We must overcome the impression that so frequently prevails that a foreign substance causes all the trouble. The *Bacillus coli communis* is the important factor. Within a period of eighteen months I have performed fifteen operations for relapsing appendicitis without a death, and have found the appendix in all conditions possible—short, long, obliterated to a mere string, enlarged, elongated and swollen, with adhesions very extensive and embarrassing; in some cases associated with a sinus still discharging from a previous abscess; very few cases presenting a foreign substance—fæcal concretion or otherwise.—A. VANDERVEER, in *International Journal of Surgery*.

MEDIAEVAL GYNÆCOLOGY.—Father Mayster Alexis, of Piedmont—who lived in the latter part of the sixteenth century, and who appears to have been familiar with the tampon and postural method—remarks regarding “a woman that has the matrice out of her natural place:”

Take a flint stone that hath been alwaies in the earth and not taken the aire, and put it in some basket covered in a great fire, and when it is verie hotte put it in a little tubbe or barrell, and wet it with vinegar cast upon it, and cause the woman to stand over it to receive the smoake or parfume of it, and then let her goe to bed. Ye shall after this take the juice of Rue and make a little rounde ball of cotton, whereunto ye shall tie a threede, and then dippe the said ball in the said juice of Rue, and put it into the mouth of the matrice, the whiche will incontinent take the ball and drawe it in, and then it will return into his natural place again. But you must binde and tie the ball sure and

well, least peradventure it should remaine within. After this an ointment is to be applied to the reynes of her backe, and laye hotte towe upon it, and then swaddle her as women do young infantes. And so she must be laied in her bed with her bellie upwarde and her heade lower than her buttockes. This must ye doe from night to night three times and she shall be healed. She must also eate hot things in operation, as pigeons and hennes, with spices and other like things.

—W. S. ROBERTSON, in *Edinburgh Medical Journal*.

SIMPLIFIED OPERATION FOR PSEUDO-ARTHROSIS.—The following operation I have employed successfully in fibrous union of tibia, and it has several advantages, namely: It is not difficult; there is no shortening of the leg; the flap is well nourished; too much manipulation of the fragments is avoided. The fragments are exposed by means of a tongue shaped flap with the free end downwards; this free end contains in its under portion a piece of bone which is chiseled from the end of the lower fragment; the flap consists of periosteum and skin in the portion which corresponds to the fibrous tissue between the two fragments; the lower end of the upper fragment is then freshened by the chisel, and the flap drawn upwards so that the piece of bone in its lower portion corresponds to the defect which has to be filled in, the two ends of the raised portion of bone resting on the freshened ends of the two fragments. The flap is kept in place by deep sutures passing through skin and periosteum; the raw space from which the flap has been taken is covered in by undermining the skin on either side and drawing it together by sutures. A firm dressing is then applied.—MUELLER, in *Centralblatt für Chirurgie*.

ECLAMPSIA AND URÆMIA.—The active agent in eclampsia and uræmia is a toxic agent. By uræmia is no longer meant poisoning by urea. In jaundice the urine is especially toxic; in eclampsia it is less toxic than normal, while the blood-serum is more so. In jaundice the bile is six times more toxic than the urine. Methods of treatment should be based on the toxic theory; but the amount of toxic principles that can be removed by increasing urinary secretion, catharsis, and sweating, is limited,—more can be removed by abstracting blood, but venesection has not given the results hoped for. There is some recent experience favoring diluting the poisonous blood by saline injections, and these favor removal by diuresis and diaphoresis. Veratrum, morphine, etc.,

are valuable medicinal agents, but pilocarpine is to be condemned, as well as over-medication by chloroform, etc.—DOCTOR VAN PYEMA, in *Medical Record*.

CAUSES OF SUDDEN DEATH.—Disease of the heart (especially fatty and brown degeneration), aortic regurgitation, interstitial abscess, rupture of the heart or of its valves, diseases of the pericardium:

Diseases of the blood-vessels (especially aneurysm and thrombosis), large effusions of blood into the brain or its membranes (cerebral and meningeal apoplexy):

Pulmonary apoplexy and hæmatothorax:

Sudden bursting of visceral abscesses:

Ulcers of the stomach, duodenum, or other parts of the alimentary canal:

Extra-uterine pregnancy, peri- and retro-uterine hæmatocele, rupture of the uterus:

Rupture of urinary or gall bladder:

Cholera and certain zymotic diseases:

Large draughts of cold water taken when heated:

Mental emotions:

Accidental swallowing of foreign bodies.

—MEYMOTT TIDY.

LOCAL SEDATIVE APPLICATION.—For the relief of vague pains localized at different points upon the surface of the body, as well as in the treatment of intercostal neuralgia and the pleuritic stitches of chronic pulmonary tuberculosis, the following is recommended:

R Menthol,
Chloral hydrate, } equal parts.
Camphor,

In this prescription liquefaction of the solid ingredients takes place when they are brought in contact. The resulting fluid is slightly stimulating, slightly irritant, and decidedly analgesic. Apply to painful part with camel-hair pencil once daily, or as symptoms may indicate. Should too frequent application result in vesication, intermit use until the parts heal.—DOCTOR S. S. COHEN.

PUBERTY AND DISTURBED HEART-ACTION.—There are three forms of cardiac disturbance at the epoch of development of the sexual functions: Nervous palpitations and paroxysmal tachycardia in otherwise healthy subjects,—frequent before the first period and usually ceasing soon afterwards: The well known cardiac symptoms in chlorosis: Hypertrophy of the heart occasioned by the

alterations of the circulation associated with the establishment of menstruation and aggravated by unsanitary clothing, especially tight lacing.—KISCH, in *Frauenarzt*.

TRAUMATIC RUPTURE OF DIAPHRAGM.—A patient received several stab wounds in the left side of the chest. Through one of these, situated in the ninth intercostal space, there was a protrusion of omentum, on the reduction of which a penetrating wound could be felt in the diaphragm. After the protruded omentum had been replaced in the abdominal cavity, and the wound in the thoracic wall enlarged, the slit in the diaphragm was closed by sutures. Healing occurred by first intention, and the patient made a good recovery.—SCHLATTER, in *Correspondenz-Blatt für Schweizer Aerzte*.

CAUTION AFTER ENUCLEATION OF EYE.—Doctor Jackson calls attention to the importance of carefully *exploring the socket* with the fingers before applying dressings. By this means he has discovered the foreign body that was supposed to have lodged in the eyeball, but instead had passed entirely through it, lodging farther back. In other cases this means of examination has revealed an abscess, or masses of exudation within the orbit, giving important indications as to the subsequent treatment.—*Philadelphia Polyclinic*.

INEBRIETY.—Montyel concludes that inebriety is curable in one-third the cases. The basis of treatment is complete, compulsory prolonged abstinence—without which there is no chance of recovery. Abstinence should be supplemented by treatment of the condition of the nervous system of which inebriety is the symptom. The patient should be placed under discipline, subjected to an efficacious surveillance, for at least one year.—*Alienist and Neurologist*.

SURGICAL SHOCK A CAUSE OF DEATH.—Deaths from shock in women after abdominal and pelvic operations, as a broad statement, are so many unnecessary deaths, and represent deaths from hæmorrhage or from greatly prolonged operations. Of course the exceptions are those operated upon *in extremis*, and these operations are seldom attempted except by the more courageous or well trained gynæcologists.—CHAS. P. NOBLE in *Medical News*.

The Medical Age.

VOL. XIV.

DETROIT, MARCH 10th, 1896.

No. 5.

Original Articles.

MYXEDEMA.

BY S. J. MELTZER, M.D.

The patient whose history I wish to relate is a married woman, thirty-seven years old, born in the United States, of German parents. At first she stated she had suffered from the condition for which she presented herself only for the last two years; but it was soon learned she had for many years been constantly under the care of physicians. She had been treated by hot baths, and her limbs had been banded and treated with ointments containing iodine. The patient herself is now convinced her disease began perhaps ten years ago or

teenth year until she married, the patient suffered from "somnambulism," but exhibited no other nervous symptoms. There were no nervous troubles in the family. She married at twenty-five, and at twenty-eight gave birth to a child which is now nine years old and healthy; has had two miscarriages, but no subsequent conception. No signs of syphilis. The status before treatment was as follows:

Of medium size, and stout, massive appearance; presented not the slightest resemblance to her photograph taken about thirteen years before; her weight had for some time been not less than 225 pounds. Her face was grayish-yellow in color and waxy; lips cyanotic; two



FIG. 1.—About thirteen years ago.



FIG. 2.—November 22d, 1893.

more. Her father died from tuberculosis; she herself was in infancy afflicted with "glands,"—otherwise has always been well. She first menstruated at the age of fourteen, but this function ceased entirely between her sixteenth and eighteenth years; then, until two years ago, her menses were normal. From her six-

brownish-red spots on each cheek over the malar bone, and a similar spot on the tip of the nose. "People surely believe I drink," she used to say. The palpebral fissures were narrowed; both eyelids thickened, puffy, and baggy; eyebrows normal, but the distance between them seemed to be abnormally great.

The entire face seemed to be swollen and œdematous, but pressure with the finger left no pit, and the skin presented fine wrinkles. The nose was thickened, broadened, and somewhat flattened; the lips swollen and puffy, the lower one especially so, being pendulous and everted. The front of the neck was covered by two large pads of adipose tissue, so that palpation of the thyroid was out of the question. On both sides of the neck, in the supra-clavicular region, were large swellings extending backwards and uniting at the back of the neck. The entire body was covered with such œdematous tissue, but nowhere was there true œdema, except in the legs, where pitting followed finger-pressure, —this œdema disappeared after rest in the recumbent posture, while the solid œdema below remained unchanged. The appearance of the hands was quite characteristic—they were indeed “spade-like,” or like a “mole’s paw.” The skin of the entire body appeared to be dry, chapped, and scaly, and in some places as if strewn with flour. The nails were brittle and ridged longitudinally. The hair appeared dry and faded; quite thin upon the head, and almost entirely absent from the axilla and about the pubes. The gums were peculiarly swollen and spongy. During sleep a brownish fluid dribbled from the mouth. Nose always dry. She never perspired, not even in summer, but constantly felt chilly, summer heat being never too warm for her, —she always felt better at this season than in winter. Appetite was moderate. Bowels mostly torpid, and sometimes a source of considerable trouble. Urine from 1800 to 2000 cubic centimeters in quantity every twenty-four hours, with a specific gravity of about 1.015; albumen constantly present, though never exceeding one-half per cent.; a few hyaline casts. Menstruation took place about once every eight or ten weeks during the preceding year, and was very scanty. Special senses were normal, and common sensibility unchanged. No motor paresis, although a considerable degree of awkwardness and helplessness was manifested. The gait was heavy, dragging, and peculiarly waddling. Speech always sounded as if the organs of articulation were stiff and rigid, and it was often hard to understand her. Voice was deep and harsh. Lungs, heart and other

organs normal. Temperature was never below 98° F. Pulse averaged 82. She often complained of headache. Intelligence was slow, but good; her appearance, however, was stupid and “cretinoid;” memory considerably impaired.—“Don’t give me so much money,” she was wont to say to her husband, “as I don’t know where I put it.” Constantly very irritable and cross, she could yet sit for hours apathetically in one spot, staring in one direction; though conscious of the disagreeableness of this state, she was unable to overcome it. She was afraid to be alone, and often believed she saw rats and mice running around—sometimes even searched for them; also heard all kinds of voices, and often at night heard the bell ring, people going around in the house, and had no rest until her husband had investigated; but she had neither fixed nor persecutory ideas. Was conscious of delusions and hallucinations, nevertheless she could not resist them. Was hardly capable of properly attending to any household matters. Her condition was insufferable, and though it improved now and then the improvement was of short duration.

The patient presented a typical case of myxœdema. The only exception consisted in normal temperature and frequent pulse.—In most recorded cases the temperature is said to be more or less subnormal and the pulse retarded. The diagnosis, however, did not depend upon a single symptom, but was based upon the sum of all the symptoms and the general impression. One who has once seen a case of myxœdema will always recognize it if he only thinks of it. The only condition with which it can be confounded is nephritis and there are abundant grounds upon which to base a differential diagnosis.

The character of the œdema is entirely different from that encountered in nephritis; it does not pit on pressure, and cannot be removed by massage. I also believe that in œdema resulting from kidney disease or from diseases of the circulatory system the skin is more tense and smooth and the swelling more pronounced in the dependent portions of the body, while in myxœdema there is no such preference—the upper part of the body is at least as commonly swollen as the lower part, the upper eyelid as much swollen as the lower one, etc. Especially character

istic of myxœdema is the swelling in the supra-clavicular region;—long before the era of myxœdema, Hilton Fagg called attention to these tumefactions in cretins. Furthermore, the failure of perspiration is a strong point in differentiation; to induce perspiration in patients with kidney trouble is certainly not among the impossibilities. Again, the stupid cretinoid appearance of patients with myxœdema is characteristic of this disease. As to the sensation of chilliness, nephritics complain, at least after exertion, rather of heat than of cold. Finally, the quantity and the specific gravity of urine might help to decide the diagnosis: in myxœdema the quantity of urine is never so small as in parenchymatous nephritis, and never so large as in interstitial nephritis. Should there be such enormous œdema in parenchymatous nephritis as we see in myxœdema, the quantity of urine would likely be less than one liter and the specific gravity above the normal; in myxœdema the urine never becomes so scanty, and the specific gravity is constantly below normal. It is true that in very advanced cases of myxœdema serious destructive processes set in in the kidneys, and on the other hand it is stated that the symptoms of myxœdema disappear considerably in the last stage of the disease; under these circumstances a diagnosis might indeed be difficult, but the subject of myxœdema is not often permitted to advance so far either in respect to diagnosis or in respect to treatment.

I have been led to consider the differential diagnosis of myxœdema somewhat fully, as I was not able to find a discussion of the points considered in any of the treatises on this subject which I have had time and opportunity to consult.

Treatment was instituted on November 23d, 1893, and consisted in the ingestion of pulverized sheep's thyroid, prepared by Parke, Davis & Co., of which fifteen grains correspond to one gland. The powder was given in capsule, beginning with five grains daily for the first three days, and increasing the dose one grain every fourth day. This was, to be sure, a very conservative course, for in many reports we read even of ten grains and more being given three times a day as an initial dose. It must be borne in mind, however, that two cases of death have

occurred during the course of treating with subcutaneous injections; and although, so far as I know, no fatal results have as yet accrued from the administration of the thyroid by the mouth, many writers speak of serious accidents from the use of large doses. I therefore preferred to advance cautiously. After two days the patient was quite sure she was better, as she could open her eyes more widely. After a week's treatment every one could notice the change: the œdematous swelling was diminished all over the body; the skin became more wrinkled and scaly; the woman's spirits were improved and she began to be interested in household affairs; the former headache disappeared. She already thought if she had previously been in such a state she would not have consulted a physician. The improvement went on constantly, but at the end of the third week a few disagreeable symptoms appeared: she now had pains all over, and felt as if she had been beaten; knots could be felt in the skin in different parts of the body; on the arms and legs there appeared bluish-red streaks, and she had an occipital pain which was quite disagreeable. She was nevertheless not in the least discouraged. The headache improved after the administration of phenacetine. All the other complaints also gradually diminished, although the dose of thyroid was constantly increased. The patient could not be kept in the house; she enjoyed her new life. In the beginning of January the dose was increased more rapidly than I ordered. Then, when the dose reached fifteen grains per day, a reaction set in: she vomited several times; appetite entirely disappeared; temperature, which twice only had been 100°, rose to 101°, and the pulse was 104. Intense pains in the occiput and in the temples set in, and there was such muscular weakness that she could hardly turn herself alone in bed. I discontinued the administration of thyroid, kept the patient in bed for a few days, and gave her first a bitter and later a mild preparation of iron. She recovered from her untoward symptoms after a few days. I recommenced the thyroid treatment after an interval of twelve days, and then only because the patient complained suspiciously of chilliness. From that time, however, the dose could not be increased for several days; ten grains a

day for three days was sufficient to bring on muscular weakness and pain in the limbs, which disappeared again after an interval of two days. At this writing she is taking ten grains every fourth day.

The change that has taken place in the patient is certainly extraordinary. She has lost forty-five pounds; has a normal speech and a normal gait, and makes full use of both. Now that the tongue is pretty small, it can be recognized that this organ also was abnormally enlarged. The gums and lips are normal in size as well as in color, and no saliva dribbles from the mouth, though there



FIG. 3.—February 24th, 1894, after three months' treatment with thyroid.

is some secretion from the nose. The skin looks considerably changed, hanging in some places like a loose bag, but is smooth and soft. The hair has recently ceased falling out, and a new growth is making its appearance. In the first few weeks of the treatment the face became covered with fine down, which has since disappeared. The bowels act normally, and menstruation has been regular since December. The pre-existing anaphrodisia is said to have turned into hyper-aphrodisia. While the thyroid is being taken, the quantity of urine is increased to 3000 cubic centimeters and the specific gravity to 1.020; in the intermissions the quantity and density are again decreased;

there are still traces of albumen in the urine. The sensation of chilliness has disappeared entirely; the patient goes out in all kinds of weather and no longer complains of feeling cold. Of perspiration, however, there is still little to be seen. The expression of the face is totally changed, and all of the psychic disturbances have disappeared entirely; only a slight degree of irritability remains. She is always in high spirits, works diligently, and sings the whole day; is so changed that none of her former acquaintances recognize her. There are still circumscribed tumefactions in some parts of her body, but it is to be expected that even these will finally disappear.

Of other cases of myxœdema, authors state that the patients after treatment with thyroid remain very anæmic. My patient looks quite well. Whether the moderation with which the thyroid was given, or the administration of the iron preparation, had something to do with the favorable result, it is impossible to state.

New York City.

LACTIC ACID IN EPITHELIOMA OF FACE.

BY I. N. BLOOM, M.D.

About eight months ago came to me a patient, sixty-five years of age, who had an epithelioma upon the cheek. The history was that six years ago he noticed a small crust, which would heal and recur alternately until finally, after eight or ten months, it became a permanent sore; its growth was at first slow, which is a characteristic of epithelioma of the face, but finally it began to rapidly enlarge. At the time I first saw the case, there was a sore, including the induration, about the size of a silver dollar; the induration was nearly one-half inch in thickness, and in the centre was a depression in which a copper cent might easily have been placed,—a depression so deep that I thought it might penetrate the cheek, though further examination proved that it did not.

In this case I employed lactic-acid paste, composed of silicic acid and lactic acid, probably about fifty to sixty per cent. strength. The first application caused no pain. The strength was then increased by making the paste more fluid, resulting in some pain, but not too

great to be borne, which lasted several hours. Applications were made twice a day for a week, then once daily, resulting in a perfect cure in eight weeks.

This case was one of typical epithelioma; the secretion was thin sero-purulent in nature, which is almost characteristic where there is any secretion; it bled readily; the induration was decided and extremely hard, and circular in shape. At the end of eight weeks the cheek was perfectly smooth and it required a most careful inspection to determine where the epithelioma had been. There were no enlarged glands at any time.

Treatment of epithelioma of the face by means of lactic-acid paste was first suggested by Von Mosetig Moorhof, who made the peculiar claim that it would attack and destroy cancerous tissue but would have no effect upon healthy tissue. The objection to almost all other forms of caustics is that they attack healthy and cancerous tissue alike.

Since the above case was treated I have had occasion to use the same treatment in four or five others, and I will briefly relate them in the order of their occurrence. In all, the claim of Von Mosetig Moorhof has been confirmed, as the paste had no effect whatsoever upon the healthy tissue surrounding the epithelioma, further than to cause a slight redness.

A patient was sent to me by a physician in one of the interior towns of this State, who had a small epithelioma involving the outer canthus of the left eye. Its growth had been slow at first, later enlarging more rapidly and extending over the greater portion of the lower lid and down upon the cheek to some extent. Doctor Cheatham applied the galvano-cautery to the lid at my request, and under the application of lactic-acid paste to the other portions of the cancer rapid improvement took place. The patient is now entirely relieved, there being only a smooth cicatrix to indicate the former site of the epithelioma.

The next case was brought to me from the country. The gentleman had first observed the epithelioma eight years before, which presented the usual symptoms—slow growth at first, later developing very rapidly; the edges of the sore were indurated, and it bled freely upon manipulation. Lactic-acid paste was applied as before indicated, resulting in a

perfect cure. The cicatrix which remains is smooth.

I have now under treatment a case of epithelioma of the lip which is rather peculiar, inasmuch as a sinus that will admit a No. 25 sound extends into the cheek. I have applied lactic-acid paste, even filling the sinus itself, making the paste fluid so that it could more easily be introduced. There was at first considerable induration around the external surface. After filling the sinus, the paste was applied to the external surface; over this an ordinary dressing. The induration and slight ulceration have disappeared entirely, though the sinus is still open, which is but natural; but I presume it will close inside of two or three weeks. The cosmetic result I feel confident will be perfect, and the scar remaining will not be larger than the cross-section of a lead-pencil.

In all these cases the results have been uniformly good. Of course it cannot be positively said that the trouble will not recur, but in no case is there any indication of a return thus far.

As regards pain after the application of lactic-acid paste: In the last case, a lady sixty years old, the pain was excessive—so much so that, contrary to my rule, I washed off the paste on the fifth day and applied a ten-per-cent. iodoform ointment, inserting a strip of iodoform gauze into the sinus; this was continued for a week, when the paste treatment was re-instituted. The sinus is certainly closing from the bottom, as it is now not more than one-quarter of an inch in depth, and I am positive from its appearance that in two weeks it will be entirely closed.

In preparing the paste I take out enough of silicic acid to make a quantity sufficient for one application; and, putting this upon a glass or mortar, add lactic acid drop by drop until, when thoroughly mixed, the paste is of a consistency which will readily adhere to the affected parts.—The amount of lactic acid necessary can only be told by experiment. For a flat surface, of course, the paste can be made more fluid, as it will be less likely to run.

The more I use this paste the more am I convinced of the correctness of Von Mosetig Moorhof's statement; I certainly believe lactic acid is the best caustic we have for the

treatment of epithelioma upon the superficies of the body.

So far as I know, it has been used in this city only by myself. My first experience with it was eight years ago, when I had a case of epithelioma of the face in an old lady, and made a few applications of lactic-acid paste, but the patient complained of a great deal of pain. I then left the city and turned the case over to an assistant, requesting that he continue the treatment, but she complained so much he was led to desist. In this case a cure did not follow. As previously stated, my experiments have proven that this paste attacks diseased tissue and spares healthy tissue. In some cases where it has been necessary to spread the paste over a portion of healthy tissue, only a slight redness has been produced, which disappeared upon withdrawing the caustic.

Louisville, Kentucky.

FUNCTIONAL CARDIAC DISEASE.

BY J. N. HALL, M.D.

I present a record of ninety-four cases of cardiac disease.—Hospital and dispensary cases are purposely excluded, because I desire to show, as far as possible with so small a number of cases, something of the frequency with which the different forms present themselves in this region.

Of the ninety-four cases, thirty-one were organic. Sixteen of these were cases of mitral insufficiency, four mitral obstruction, two aortic obstruction, five dilatation without valvular disease, one angina pectoris—fatal in the first seizure,—one hypertrophy with functional disturbance—such as Da Costa terms “irritable heart,”—one congenital pulmonary stenosis, and one displacement under the right nipple from contraction of fibroid phthisis, although the organ itself showed no especial signs of disease.

Of the sixteen cases of mitral insufficiency, one was complicated with aortic regurgitation, one with interstitial nephritis, and one with pericarditis with effusion.

The sixty-three examples of functional cardiac disturbance presented chiefly palpitation, tachycardia, or cardiac pain, or various

combinations of these factors,—an exact analysis of the symptoms in each case does not seem of sufficient value in this connection to justify insertion. Many cases of temporary disturbance of the heart's action were noted, of course, and especially in connection with acute disease, not included in this table. Thirty-three of the cases were in males and thirty in females, although the latter are generally stated to be more subject to the trouble in question. Of the males, in thirteen the disturbance was undoubtedly due to tobacco in excess, in eight to tobacco and coffee, and in two to coffee, making a total of twenty-three due to these two drugs; in five cases the trouble was apparently explained by the presence of severe anæmia, in one it was associated with epilepsy, in one with indigestion, in one with mental excitement, while in two no cause could be assigned. Of the thirty cases in females, five were due to tea in excess, three to coffee, and one to tea and coffee combined, making nine cases of toxic origin; nine were of anæmic origin, one of these depending upon the inanition of vomiting of pregnancy; in three the trouble arose from indigestion, in two from mental excitement, in two from too sudden change to a higher altitude, in one in association with severe neuralgic pain, and in four no cause could be assigned. Of the total cases, then, twenty-three males and nine females—or thirty-two in all—were of toxic origin, while fourteen in all were associated with anæmia. The toxic form prevailed in males, the anæmic in females. Four cases were attributed to indigestion, three to mental excitement—including under this heading grief,—five may be termed “scattering,” and five were unexplained.

It is encouraging to note the cause was obscure in so small a proportion, and especially so when is recalled the fact that the physician is necessarily so little acquainted with many of his patients, and consequently utterly unable to fathom the mental troubles which are so prolific in causing circulatory disturbances. It is likely that in some of the unexplained cases, some hidden cause such as anxiety or grief was the active factor.

It is noticeable that in men who use tobacco, worry and anxiety (as in times of

financial trouble) and idleness (as in ranchmen and cowboys during the winter) cause an increased use of the weed, and hence are likely to give origin to cardiac trouble.

In none of the cases of tachycardia did exophthalmic goitre develop, so far as known, although it is a possibility to be borne in mind in these cases.

As to treatment: In the toxic forms, the tea, coffee or tobacco was withdrawn in part rather than entirely, and commonly some of the bromides prescribed. The disturbed digestion, so common especially in tobacco-chewers, generally yielded to bismuth, often combined with soda or with some laxative. Sleeplessness, also frequent, was overcome by moderate doses of chloral for the first two or three nights, until the bromides had quieted the disturbed action of the heart.

In the anæmic forms, iron was given, very commonly with some laxative, and with sufficient bromide to give relief from palpitation and sleeplessness. One case dependent upon the vomiting of pregnancy recovered promptly after the latter had yielded to quarter-grain doses of cocaine, the patient having lost forty pounds of flesh.

The cases brought on by too rapid ascent from a low altitude to a high one were treated by rest chiefly, though one also required digitalis; both were relieved promptly, and returned to a lower level.

When no cause could be discovered, the treatment was entirely symptomatic.

Of the sixty-three cases, only one, to my knowledge, has developed valvular disease. This woman, forty years of age, under observation nine years, first complained of palpitation apparently due to indigestion. During the past four years she had several attacks of rheumatism, which abundantly account for the mitral regurgitation which now exists. This instance helps to substantiate the generally received idea that functional disease does not commonly lead to anything more serious, excepting in cases which develop into "irritable heart" as mentioned above, with more or less hypertrophy. Two of the cases reported here as functional disorder are apparently developing slight increase in cardiac area, and seem likely to eventuate in this form of organic disease.

Denver, Colorado.

BLEPHAROPLASTY BY THIERSCH GRAFTS.

BY JOHN M. FOSTER, M.D.

On account of the frequent occurrence of injuries, burns and abscesses of the lids that are followed by loss of substance and ugly cicatricial contractions, and the oftentimes unsatisfactory results that follow efforts to overcome the deformities, I deem it not inappropriate to present the following:

The accident occurred while attempting to stop a runaway team in January, 1895. The patient was thrown violently to the ground and received a severe lacerated wound of the upper lid, including the cilia margin, extending upward through the brow three-quarters of an inch upon the forehead. The wound was a deep one and, despite the best of care, resulted in an ugly deformity.

Dense cicatricial tissue formed, destroying the integument of the brow and drawing the central portion of the outer third of the upper lid upward, binding it firmly to the rim of the orbit, entirely obliterating the inch or more of loose skin and cellular tissue that permits the free movement of the parts. The connection between the lid and brow was so firm and intimate that closure was impossible; the eyeball was therefore deprived of its moisture and protection, exposing it to the constant desiccating and harmful influence of air and dust. Naturally this was resented, as shown by the injection and irritation of the conjunctiva and a slight haziness of the cornea.

More on account of the last symptoms than for cosmetic effect, it was deemed necessary to take measures to prevent serious involvement of sight, and accordingly I operated on February 11th, some four weeks after the accident.

There are a few points regarding technique, solution, and dressings, that seem to me to be of enough importance to warrant mention. As it was decided to use the Thiersch method of skin-grafting, the night before the operation the region of the eye (as well as that of the inner aspect of the left arm, whence the grafts were to be taken) was thoroughly cleansed with soap and with bichloride solution (1 to 2000), and finally bound up with sterilized dressings wrung out of salt solution.

The operation was performed under ether,

and an incision made, commencing at a point near centre of lid, four lines from the cilia, extending outward through the cicatrix, and ending one-fourth of an inch beyond; the skin and bands were then entirely severed. The edges of the integument at the cut border were lifted with rat-tooth forceps, and a large amount of cicatricial tissue broken up and removed. The margins of the upper and lower lids were then brought in apposition and sutured, thereby exhibiting a large, raw and bleeding surface, one inch long and one-half inch in height. After all hæmorrhage had ceased, the grafts were removed from the arm with a sharp razor, only the outer layers of the skin being included. These were allowed to remain on the blade, cut in three sections to suit, and finally washed off onto the prepared surface by a physiological salt solution, care being taken to cover it entirely and allow a little lapping upon the healthy skin around. Rubber tissue was then applied and a thin compress held by a bandage. These were left in place forty-eight hours, and when removed the grafts were alive and free from pus. Only salt solution was used in dressing once every twenty-four hours, and rubber tissue and bandage as before.

The patient returned to his home, in Colorado Springs, in two weeks, with grafts formed into good strong tissue, and the lid fairly approximating the globe. It became apparent to him, however, in a short time, that contraction was taking place again, and he returned to me on March 23d, forty-three days after the operation. The condition was found to be a great improvement over his former deformity, but it was apparent that all had not been accomplished that should be.

Assisted by Doctor Powers, I decided to again graft after the Thiersch method, but to prepare the surface somewhat differently. The same precautions were taken in regard to the eye and arm, and the same anæsthetic employed. An incision was made through the integument two lines from the cilia, running parallel with them from centre of lid to the outer commissure. A second incision commenced at the centre of the first, running at right-angles upward, across the original graft, through the brow and well upon the forehead. After dissecting out the cicatricial

tissue, especially under the brow, and suturing the edges of the lids together, I had a large triangular surface with its base downward corresponding to the cilia border. So much of the deep tissue had been cut away that the upper edges of the wound presented the appearance of an overhanging creek-bank when it has been washed out underneath. Although stress is laid upon the necessity of entirely controlling hæmorrhage, I found this impossible. The grafts were much thicker this time, including the entire thickness of the skin, and were cut in five sections and laid carefully upon the wound as before, care being taken to have them conform to the caved-out banks of the upper borders of the wound, and held there by snugly fitting absorbent cotton pledgets. Dressing as before.

In forty-eight hours the bandages, partially soaked in blood, were removed, but the grafts looked healthy. I cleansed and dressed every morning for three weeks; then all dressings were discontinued and diiodidi thymol dusted over. The sutures were renewed, holding the lids together, and left in position to overcome whatever contraction there might be going on, until May 11th, forty-eight days after this second operation.

The ultimate result is most satisfactory. The grafted surface is firm, the integument healthy, and the contractions have been so far overcome as to allow the lid to lie snugly against the globe and to close evenly against its opponent and fellow. So little of the muscles has been destroyed that the patient closes and opens his lid perfectly.

Denver, Colorado.

SURGICAL TREATMENT OF ACUTE PHLEGMON.

BY W. C. DUGAN, M.D.

The treatment of acute phlegmons is of interest alike to the surgeon and the general practitioner. No field of minor surgery has been so ignored for the more attractive themes of major surgery, as has the subject of acute phlegmons, the conditions commonly known as "boils," "carbuncles," etc. Text-books and works on special surgery treat largely of abdominal, cerebral, thoracic diseases, etc., and

the subject of boils is either entirely neglected or given a mere passing notice. The medical-journal writer discusses appendicitis, cerebral localization, operations for microcephalus, pelvic and other forms of major surgery, and rarely mentions one of the most common of all surgical diseases, that of acute phlegmon.

Before discussing the treatment of boils, I shall briefly review the pathology. Patients frequently declare boils are due to "bad blood," "humor of the blood," or the "season of the year," and medical men are not slow to criticise these expressions; yet are they not about as nearly correct as the teachings of some of our surgical works, which state that boils are caused by certain forms of kidney disease, diabetes, etc.? While it is true furuncles are oftener met with in patients suffering from Bright's disease, diabetes, etc., than in healthy subjects, we must not conclude that these constitutional conditions constitute the *fons et origo mali*. Patients, too, are often told the successive crops of boils are the result of high living, bad digestion, etc.; yet many cases of Bright's disease, diabetes and indigestion have existed without development of these troublesome pests to which such great depurative action has been attributed.

The relation the above-mentioned constitutional conditions bear to the development of acute phlegmons is rather intimate; they are, however, only accessory, acting simply by lowering tissue-resistance, thereby making way for the real cause. Careful bacteriological examination of pus from these foci of inflammation invariably reveals the presence of certain forms of vegetable life which belong to the family of pus-forming micro-organisms. That boils and carbuncles are microbic in origin can hardly be questioned, and that they are caused by a micro-organism of their own no bacteriologist seems willing to deny. I am rather surprised to see that modern works on surgery still adhere to the old idea regarding the cause of carbuncles, for they *are not* due to the anthrax bacillus, which is found in malignant pustules, but to the staphylococcus and streptococcus operating upon tissues whose normal resistance has been lowered, perhaps by malaria, diabetes, or other malady.

The different symptoms manifested in acute

phlegmons may be due to some local or general condition of the individual, or to a different degree of virulence of the microbe under conditions not yet definitely understood. These different symptoms were formerly supposed to depend upon whether the condition was one of boil or of carbuncular inflammation. So far the bacteriologist has been unable to take pus from these suppurating foci and isolate the microbe; therefore it would appear both forms of suppuration are, most likely, due to the same organism.

The common method of treating boils is but little better than leaving them to the processes of Nature. When the patient is told to apply a poultice, he has only a vague idea of what is meant; he has only a faint conception of the manner in which such application should be prepared, and oftentimes continues its use until fermentative changes have taken place; thus beneath a poultice applied to cure one boil may be generated, by heat, moisture, and filth, enough microbes to infect the universe. He feels that the application has some specific action, entirely unmindful of the fact that its virtue is in the heat and moisture; he applies a little half-cooked poultice, which is cold by the time it has been arranged, and goes to bed, and the next morning it is taken off. If the patient could possibly have done anything more conducive to the growth of germs and the development of a secondary crop of boils, I am unable to imagine it.—Moisture of the poultice at or about body heat is certainly favorable to the growth of microbic life. Poultices as generally made and applied are absolutely harmful and should be discarded.

I do not wish to be understood as denying the relief obtained in the treatment of boils by the application of moist heat, which has a two-fold action, in that it lessens tension and thereby mitigates pain, and if the heat be 104° to 110° F. it arrests microbic development. In my judgment there is but one form of poultice to be relied upon, and that is bichloride gauze wrung out of boiling water, or plain gauze wrung out of carbolized water, applied in a thick pad over the parts, extending some distance from the inflamed centres, covered with oiled silk, rubber tissue, waxed paper, or oiled paper; this has all the advantages of the old flaxseed poultice.

tice, without the objections. The moist heat affords relief to the patient by causing tissue-relaxation, and also lessens microbic action. While this method of treatment may not cure the boil, more important is the fact it will not conduce to the development of others.

Another line of treatment which is practiced to some extent, is painting the parts with pure carbolic acid, tincture of iodine, or other powerful antiseptic. When instituted early in the progress of the disease, it has been found this will abort a certain per cent. of the cases. When one boil has formed, steps should immediately be taken to prevent the development of others. If situated on the back of the neck, the coat and vest collars should be removed or thoroughly disinfected, precautions being taken to avoid infecting other parts. Many cases can be recalled where patients have had one boil after another on the neck; if the first had been properly treated, and preventive measures instituted, the successive crops might have been avoided.

Since the microbic origin of the disease seems settled beyond any reasonable doubt, it appears that any method which does not apply the remedy directly to the focus of the disease, either by free incision and the application of antiseptics, or by injection of same into the tissue, is untrustworthy and should be discarded. The habit of waiting for pus-formation is bad; Nature has by this time mastered the situation and will soon get rid of the pus without the aid of the knife. I make it a rule to treat acute phlegmon as soon as it comes under observation. The parts are first thoroughly washed with soap and sterilized water, then a four-per-cent. solution of cocaine is injected into the deeper layer of the skin—which if not done carefully will give unnecessary pain. A few minutes afterward it will be found the tissue can be freely incised without causing the patient any pain. After free incision has been made, a probe wrapped with absorbent cotton saturated with 95-per-cent. carbolic acid should be applied to every part of the wound, pushing well out into the tissue in all directions to be certain that no part of boil tissue escapes; this procedure is not painful, and it is rare that patients complain. The wound should next be dressed by packing

thoroughly with cotton saturated with carbolic acid, and over all be placed the regulation dressing of gauze and cotton. As a rule, all acute symptoms subside within a few hours, and the patient feels much improved. The operation may also be performed without a local anæsthetic, inasmuch as the carbolic acid after the first few seconds acts as an anæsthetic.

I have not found it necessary in all cases to incise the phlegmon, but in place of incision inject pure carbolic acid into the inflamed tissue. Where suppuration has already supervened, it is best to make a small opening; if seen before this period, the best method is to inject carbolic acid into the central portion of the induration. If the phlegmon is diffuse, multiple injection should be practiced, depositing four to ten minims in each place, and unless one has witnessed the course after such treatment he is not prepared to believe how rapid is the improvement. In my judgment, if the patient is seen early, before suppuration has occurred, the most rational procedure is to practice injections of carbolic acid as described. If a case is seen some hours after the initial symptoms, it is then perhaps best to incise and apply acid, and my experience has been so uniformly satisfactory that I am positive nine out of ten cases can be cured in thirty-six to forty-eight hours.

One patient called to see me with a large boil on his neck that had been developing about one week. The induration was extensive; at one point it was thought slight softening was detected, so it was decided best to incise it. A few drops of a four-per-cent. solution of cocaine were injected, and then an incision made down through its centre. The tissue cut like leather, and had a peculiar ashy-gray color; no pus was found. The wound was thoroughly mopped with cotton saturated with carbolic acid, renewing the cotton and acid frequently until much of the gray tissue was destroyed. The wound was then dressed in the usual way. The patient was requested to return the following day but he felt so well that he waited an additional twenty-four hours, when he came to ascertain if he could not put on his collar and resume his work. The dressing was removed and the change which had taken place was

beyond expectation. There was no suppuration, and the wound completely healed within a few days.

Another gentleman became infected while suffering extraction of a tooth which had a large abscess at its root; some of the pus accidentally came in contact with his lip. The first symptom developed in about thirty-six hours, when he noticed redness, swelling, and pain; later he had a chill, great depression, and headache. I saw him early, injected carbolic acid, and advised him to come to my office in six hours, by which time he had improved, pain had subsided, and he felt much better; there was no suppuration, and he was well inside of seventy-two hours, with the exception of some thickening of the parts due to the acute phlegmonous inflammation.

In another instance a medical student accidentally infected his lip while dressing a patient. Symptoms were severe, and his general condition such as to cause fear of malignant pustule. The induration was so extensive that multiple injections of carbolic acid were thought advisable—four to six minims each. Improvement was pronounced, and in a short time all symptoms subsided.

I have simply referred briefly to these cases to show results that can be obtained in these minor affections by employment of the measures indicated. Many other cases could be reported, in which the results have been uniformly satisfactory.

To recapitulate: The old idea that malaria, diabetes, Bright's disease, etc., cause phlegmon, has been overthrown by acceptance of the microbe theory of the disease. That these maladies lower vitality and thereby normal resistance, thus favoring development of furuncles, is true, but they never constitute the essential cause.

Louisville, Kentucky.

SYPHILITIC INFECTION OF AND BY MEDICAL MEN.

BY PROFESSOR FOURNIER.

It is only too true that in practice a physician may infect a patient, but it is not now necessary to discuss the numerous extenuating circumstances that may be urged; I only desire to state an absolutely undeniable fact,

that such contamination does occur, and that it may be effected in various ways. Although a formal division of cases must necessarily be artificial, the following will aid the memory: Contagion through the hands: Contagion through instruments: Contagion through transportation of organic substances from the syphilitic organism to a sound organism.

The first-named method, for obvious reasons, is the most frequent. After having touched an indurated chancre or an ulcerated syphilide, mere contact with a simple wound on another patient suffices to convey the syphilis to the latter, accomplishing the infection by direct transportation as it were.—Numerous cases in evidence are on record. Further, a medical man may readily infect his patient if he continues to practice while bearing on his hands any syphilitic wound whatsoever. Hutchinson reports an instance where a colleague—whose index finger bore an indurated chancre—conveyed infection to a young woman who was suffering from hæmorrhoids, by means of a digital examination. Another physician, himself similarly infected, made a vaginal examination of a perfectly healthy woman, and four weeks later three syphilitic chancres appeared on her vulva. During the eighteenth century a celebrated epidemic of syphilis originated through a syphilitic midwife who persisted in following her calling, despite the lesions upon her hand; there were first about fifty cases, but, as the contaminated women in turn infected their children and husbands, the number of victims rose to eighty in two months. In 1874 an epidemic of syphilis broke out in the little city of Brives—as reported to the Paris Academy of Medicine by Doctor Bardinet,—which also originated from the infected finger of a midwife, and the number of victims exceeded one hundred. Again, a woman who usurped the rôle of midwife had the habit of moistening with her saliva the wound formed by the cutting of the cord. Stupid and disgusting as was this practice, it did no mischief so long as she remained healthy, but unfortunately she contracted syphilis and contaminated many children.

Passing now to a consideration of instruments, it may be said, theoretically, all are inculpated, but those more commonly to blame are the bistoury, the lancet, the acces-

sories used in applying simple or scarifying cups (glasses, razor, and scarifier), the probe, the speculum, the Eustachian catheter, the tongue-depressor, the laryngoscope, and the various articles used in surgical dressings—lint, sponges, linen, etc.

Cupping is rather out of date in America and Britain, but in Europe the contingent of cases supposed to result from this source is simply frightful; veritable epidemics have thus resulted, thirteen being reported from preceding centuries and six as having occurred during our own, while the number of victims varies from six to 200. The mode of infection is very simple, since cupping is a complicated operation requiring several instruments. In the immense majority of cases, especially during the earlier centuries, this operation was left entirely to barbers, and to ambulant barber-apprentices who transported from place to place their mountebank's outfit; and it could hardly be expected that antisepsis would be observed by those who as a rule ignored the most elementary cleanliness. During one of the epidemics which occurred at Brives, the author of the affliction, an ambulant barber-apprentice, hastened to decamp as soon as he saw the evil wrought in his first victims; on another occasion a female cupper who used her own saliva to wash the glasses, having her mouth full of mucous plaques, provoked an epidemic.

The same remarks apply to infection conveyed by the lancet when the operation of bleeding was in vogue, and it too was entirely confided to barber-apprentices, since a practitioner of standing would have deemed himself dishonored thereby. In 1876, in Austria, a barber bled three patients, and in each a chancre formed on the very spot of puncture.

The opening of a furuncle or of an abscess in the armpit, by a bistoury, also has frequently been followed by indurated chancres; and circumcision may be equally dangerous—I knew a child of five years to have been thus infected, and likewise an adult.

Another most dangerous instrument is the catheter. Thirty years ago an epidemic of syphilis broke out in Paris, that claimed some seventy victims, all of whom were infected by a popular specialist who used the same instrument in each case.

Equally dangerous is the vaginal speculum,

unless always subjected to rigorous antiseptic precautions. Pardieu describes a very interesting case in which the contagion was beyond doubt due to this cause; and in personal practice I knew a young woman who unquestionably was thus contaminated.

Side by side with the speculum may be placed the tongue-depressor. The mouth is examined on all possible occasions in dental diseases, in throat maladies, etc., etc., and thus may become the focus *par excellence* of syphilitic contagion; the least inattention may prove disastrous. After examining the oral cavity of a syphilitic, full perhaps of mucous plaques, the tongue-depressor is laid aside without cleaning, and is forgotten; another patient comes in, whose mouth is examined by means of the same implement, and infection is the result—one of my colleagues, while sojourning at his country home, was consulted by a nurse in the neighborhood whose mouth proved to be full of mucous plaques and which he cauterized with nitrate of silver; but not having at his disposal a tongue-depressor, the paper-cutter was employed; a little later he resumed his reading and from force of habit proceeded to nibble the cutter, forgetting its previous use. Four weeks after, an indurated chancre appeared, and his death was directly traceable to the grave syphilis that supervened.

Neither is the nitrate-of-silver pencil exempt from dangers. Though for a long time I had my doubts on this score, they were dissipated by observing a certain number of absolutely unmistakable cases. A young man, suffering from a typical herpes, came to consult me, but, dissatisfied with the slow progress made, applied to a pharmacist, who cauterized with nitrate of silver. Four weeks later a chancre appeared, its origin being unquestionable, inasmuch as this young man had not been exposed to other infection; furthermore, I have seen hæmorrhoids thus transformed into chancres after cauterizing. But granted, even, that these two classes are to be interpreted cautiously, the following exhibits unmistakable relations as to cause and effect: A young man burned his middle finger severely, and, being summoned to military service, entered the military hospital, where caustic was applied. He was a very intelligent fellow and specially observed that

the pencil used for cauterizing his digit had just been employed on two neighboring patients, syphilitics. Though the burn was cured, four weeks after cauterization a hard chancre appeared. But naturally the query arises, whether it is the caustic or the pencil-holder which causes the mischief. Nitrate of silver being a destroyer of all organic substances, I think the blame must attach to the holder, as the latter may contaminate when the pencil is very short or when held obliquely,—in either event it touches the wound. To avoid this danger, pencils of silver nitrate are now interdicted in the French hospital service.

With regard to contamination through transportation of organic substances from a syphilitic to a healthy organism, I will first mention dental transplantation—the transplanting of the tooth of one individual into the mouth of another. As this operation is no longer practiced, I need not dwell on it. Another operation, more important, frequently performed, and where for obvious reasons contamination is very possible, is skin-grafting. A graft is but a strip of skin removed from one individual to be applied to another, and if it should be from a syphilitic, little wonder that it infects the acceptant. A curious example was that of a patient presenting a large wound in the thigh that did not heal, and to which a graft was successfully applied, so that cicatrization quickly followed; but at the same time, in the very midst of the cicatricial tissue appeared a chancre. The person from whom the graft was taken was the son of the patient, and on examination he was found to present all the symptoms of secondary syphilis, with mucous plaques.

The number of cases arising from vaccination is incalculable. This operation is commonly performed on large batches of people, and the contamination may produce veritable epidemics. Thirty such have been reported during the present century, and this certainly falls short of the actual number, for many cases are suppressed. I can add three epidemics to the number, personally observed, two of which were in French regiments of the line, the third in a provincial city. The number of victims, of course, varies greatly; sometimes it is small—five to ten,—but usually much more numerous. In the United

States Army in 1870 there were hundreds of cases of vaccinal syphilis.

I now pass to a consideration of syphilitic infection of the physician by the patient; and here too the number of cases is very considerable.

The physician may be infected in the face and in the hands, in two ways: he may be infected by direct contact with the contaminating pus, or by contact with globules of sputum projected from the mouth or throat of the patient. For example: A practitioner with a wart under his beard was in the habit of scratching it constantly, and one day while examining a syphilitic his hand touched the wart, with the result that twenty-eight days later a syphilitic chancre appeared; again, a colleague was infected while suffering from labial herpes.—I treated them both. Practitioners, in spite of every precaution, sometimes receive full in the face a veritable rain of salivary globules while cauterizing the throats of patients. It is useless to warn the patient not to expectorate, for he cannot help himself; at a given moment he is seized with a paroxysm of reflex cough, violent and irresistible, and the saliva is expectorated into the face of the physician. This has happened to me personally twenty times at least. An interne of a Parisian hospital was thus infected with smallpox two years ago, and at the present time I am treating a colleague for general paralysis who contracted syphilis fifteen years ago under similar circumstances.

But manual chancre is the medical chancre *par excellence*. I have treated seventy-nine cases of this form, thirty of which were in either physicians or midwives. This contagion may arise during different manual explorations—operations performed on the penis, vaginal examinations, obstetrical manœuvres, operations on syphilitic subjects, also wounds received during autopsies performed on syphilitic persons, especially infants. Usually the gate of entry is an excoriation; and the most dangerous of all—because no attention is paid to it, and it is not even given a name by pathology—is an aig-nail, termed in vulgar parlance “hang-nail.”

A double prophylactic warning may be gained from the foregoing:

First, the physician should be *very cautious in exploring syphilitic lesions*.

Second, if such explorations are obligatory, *the fingers, if bearing any excoriation whatever, however slight, should be protected either by adhesive bands or by a thick layer of collodion.*

These precautions are all the more mandatory as the contagion is immediate when the fingers are wounded. A colleague, bearing an excoriation of the external side of the middle digit, being called upon to examine the penis of a syphilitic, took the precaution to lift the organ by the internal side of the finger, yet, for all that, the opposite side of the digit was for a second brought in contact with mucous plaques that covered the scrotum, and in spite of prolonged and minute ablutions he was infected.

Professional syphilis enjoys an evil eminence, as endowed with exceptional gravity. When a number of physicians are gathered it is only necessary to raise this question to hear pronounced the most despairing conclusions and to conjure up the most heart-rending reminiscences. While I am not so pessimistic, I one day felt curious to ascertain what had become of a number of physicians who had contracted syphilis professionally, and I learned, to my grief and amazement, that most of them were dead. Professional syphilis, therefore, is very serious and sometimes mortal. Often I have queried why professional syphilis should be more dangerous than that ordinarily contracted. One hypothesis is that it is because the mode of infection is usually abnormal, being through the fingers; but this will not bear analysis, since we may observe cases of digital infection which are only of average severity and others which are even benign. Scrupulously analyzing the conditions, one can hardly fail to reach the conclusion that syphilis is dangerous to the physician because he presents three especially favoring conditions to its development: First, he is morally depressed: Second, he is overdriven: Third, he is inadequately treated. A man of the world may contract syphilis, become preoccupied and wretched, but we can console and reassure him by all manner of specious arguments. The physician, on the contrary, knows too well what the malady means and the dangers that will menace him in the future, and he is apt to exaggerate these dangers, become depressed in spirits, and

thus make himself a good subject for a malignant attack. The physician is overdriven; he is the hardest worker alive. There is the long general preparation in the matter of education; next the long special preparation, followed by the struggle for recognition; then the circle of patients in whose behalf he lavishes his time and strength; and finally, irregular habits as to meals and sleep; all these together constitute an excessive drain on the physical powers which offers another factor of danger. Then the ill physician is always a maltreated patient, from lack of time, more commonly from indifference or therapeutic skepticism; from increase in the number of his consultations, personal treatment is ill-directed, since there is lacking a systematic plan of campaign,—I affirm that the physician is always more maltreated than any of his patients in private or hospital practice. These are the various reasons which render professional syphilis so dangerous, and I am persuaded its gravity may be explained by the simple fact that it develops on favorable soil.

Paris, France.

A CASE OF ATROPINE POISONING.

BY A. S. MCINTYRE, M.D.

One evening in December last I was called to see Mr. J. P—, who was addicted to morphine hypodermatically. He commonly carried the drug in the form of tablets in a small flat brown vial, and in a precisely similar vial he carried a quantity of atropine tablets ($\frac{1}{100}$ grain each). On the evening in question, while at his club, he dissolved all the tablets remaining in the atropine vial—eight in number—and injected the solution into his arm, supposing he was employing morphine. He quickly became conscious of the mistake, and started for home, arriving just in time to tell his wife what he had done before he became powerless to speak clearly, and nearly unconscious. His wife at once began "walking" him up and down in front of the dwelling, hoping that the exercise and fresh air would "counteract the poison;" but when I arrived she was endeavoring to support him until he could be gotten into the house, as he was evidently failing. He was placed at first in an easy chair, and I pro-

ceeded to examine him as well as the urgent and evident demand for immediate action would permit, while the wife was giving me the above history. His face was very pale and cold; hands cold; skin dry; pupils widely dilated; pulse rapid, feeble, and "thready;" he was unconscious, but would rally slightly and utter an incoherent sound when spoken to very loudly.

As the heart action was very weak, I gave a hypodermatic of whiskey and followed in a few minutes with another of strychnine (one-fortieth grain). Finding that the poison had so far overwhelmed him that all power of voluntary motion was gone, and that coma was momentarily deepening, I decided to avoid any merely palliative or tentative measures and adopt the surest means at hand to eliminate the poison. Since he had taken the atropine hypodermatically, the emetic or the stomach-pump could be of no use. I put him in bed, drew his urine with a catheter—to guard against possible resorption, as well as to relieve the bladder,—had him well covered with plenty of woolen blankets and quilts, bottles of hot water placed at his feet, along both sides of the body, and between the legs; also gave one-fourth grain pilocarpine nitrate, subcutaneously. The pilocarpine was repeated in an hour, and in all four doses were given during the night until free perspiration was established. At the time he was put in bed his limbs were rigid, the surface of the body cold and dry, mouth firmly closed so that nothing could be forced between the firmly set teeth, and pupils so widely dilated as to obliterate the iris. At intervals the respirations, which were rapid and shallow, became imperceptible, and efforts at artificial respiration were resorted to and cold water dashed upon the face and chest.—In every instance after the cold-water application the patient drew a deep and more prolonged respiration and for a time breathed more freely.

In one hour after the first dose of pilocarpine the skin was warm and very slightly moist. The treatment was persisted in with vigor, the only precaution being that the pilocarpine was used with care and its effect closely watched. By midnight the patient was perspiring freely, and his skin was warm; pulse full, easy, and beating 100 to the min-

ute; pupils less dilated; the patient, on being shaken or sharply spoken to, would open his eyes for a moment and respond with a single word, and immediately relapse into unconsciousness, but his mind was evidently clearing and the coma much lessened.

From this time he made rapid recovery, and at noon of the day following the accident he was resting comfortably, but complained of feeling weak; the kidneys and bowels acted freely during the day.

This man, according to his own account, injected 0.08 grain of atropine into his arm. He was accustomed to heavy doses of morphine and had at times taken a little atropine with the other drug; therefore in selecting a drug to "antagonize" the atropine, it was deemed inadvisable to use morphine. The chief reason, however, for selecting pilocarpine was that it would—by exciting free diaphoresis—be a powerful factor in eliminating the poison; this influence being aided, of course, by the external heat, etc., that was applied. The actual amount of the poison taken could not be determined further than by the man's own account. I was shown the brown vial with its Atropine label, a single drop of the solution yet in it. During the entire time I was with him, the patient did not exhibit any trace of the cerebral excitement and talkativeness described by H. C. Wood and others as characteristic of belladonna poisoning.

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Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

WAS IT NEURALGIA?

Editor MEDICAL AGE:

Mrs. J—, age twenty-four, had used douches of cold water for twelve months to prevent conception, and had been subject to a continual nervous strain for at least seven months. She had always menstruated regularly until the mental strain reached its climax, when the regular periods ceased. Next followed two periods of painful and profuse menstrual action, accompanied by the most intense cutting pain, paroxysmal and metastatic in character, especially of the uterus and ovaries. Again menstruation disappeared, and

the ovarian pain continued daily and almost hourly for fifteen months. During the attacks of most acute pain in the ovaries, the abdomen would swell, and frequently would appear an irregular erythematous rash over the seat of the inflamed organ; this rash subsided coincidentally with the pain. At other times the pain would first attack one part of the body, then another; frequently every organ of the body would undergo this same pain simultaneously, which was so severe that the patient would become unconscious, sometimes bordering on the cataleptic. Persistent tympanites; constipation and gastrointestinal irritation constant. Appetite lost; very little emaciation. For four months the patient was unable to sit up in bed for an hour at a time.

All remedies, general and local, were faithfully tried, but in vain. Morphine failed to relieve until a sufficient amount was given to bring the pulse down to sixty,—at times as high as twenty grains daily were given hypodermatically.

I watched this patient from the beginning to the end of her trouble. Fourteen different physicians had been consulted at various times, and four of these advised the removal of the ovaries. Doctor G. G. Eitel, of Minneapolis, advised electricity, with iron internally, though the patient was averse thereto. She finally submitted, however, and I applied galvanism for fifteen minutes each day, using the positive pole on the lower part of the abdomen and the negative to nape of neck. In three weeks' time she menstruated; by six weeks, pain disappeared and morphine was discontinued. For four months now patient has been comparatively well, except a slight attack of measles.

Was this neuralgia? Doctor Eitel was the first to say that was all.

W. STUART LEECH, M.D.

Brooklyn, Minn.

TREATMENT OF DIPHTHERIA.

Editor MEDICAL AGE:

When high fever is present, give fluid extract of aconite, one or two drops every hour or two, in conjunction with mercurial alteratives every two hours. When febrile excitement is not so high, sweet spirit of nitre and tincture of lobelia, equal parts, one drachm every two hours. When fever is low, one grain of leptandrin every two hours, with two grains of bicarbonate of soda when the bowels need evacuating, followed by injections of gruel. When fever is low, give a muriated tincture of iron, twenty drops three times per day, diluted with two ounces of

water, and to be sucked through a quill. Give quinine when indicated, and iodide of potassium, mercury and chalk, with Dover powder.

Prescribe borax and glycerin, chlorate of potash and glycerin, alternately every four hours, and muriated tincture of iron three times per day in glycerin, all of which are to be used to gargle the throat.

D. M. COOPER, M.D.

Hemphill, Sabine County,
Texas.

LA GRIPPE.

Editor MEDICAL AGE:

In the January issue of your estimable journal, pages 8 and 9, I find a paper entitled "Some Sequels of la Grippe."

In all cases of acute inflammation,—fevers, phlegmasia, influenza, pneumonia, etc.,—I know but one reliable procedure, namely, a judicious selection and combination of alkaloids. The formula I employ is: Crystallized aconitine, $\frac{1}{80}$ grain; strychnine muriate, $\frac{1}{80}$ grain; hydro-ferrocyanide of quinine, $\frac{1}{80}$ grain; veratrine, $\frac{1}{80}$ grain; digitaline (Merck's), $\frac{1}{80}$ grain; caffeine, one-sixth grain. Mix and make a granule, or little pill, with extract of gentian. Give one to three, every fifteen minutes, for a child five to ten years of age; six to twelve for an adult.

Thereby the fever and symptoms are quickly abated. I sometimes add from two to eight little pills, each composed of: sulphur one-fourth grain, pyoktanin one-twelfth grain, arseniate of strychnine $\frac{1}{80}$ grain.

I have never met the case that would resist both these combinations. I have employed in my own family, and wife and children were cured in a short time; two had an inflammation, very acute, of throat and middle ear, with great pain; the pills of aconitine, quinine, strychnine, etc., gave complete relief in a few hours.

In inflammation of the eyes I give the same remedies and apply topically a solution of one per cent. of pyoktanin; for very acute cases I employ an insufflation of pure powder of pyoktanin every two hours.

You will be astonished with the satisfactory results accruing to this mode of treatment.

I trust you will excuse the interference of a stranger, and yet try his procedure with alkaloids and definite medication. I write for art, science, and the benefit of mankind.

J. VINDEVOGEL,

Editor and Director of the *Organe de la
Confraternité Médicale.*

Brussels, Belgium,
January 24th, 1896.

THE MEDICAL AGE.

A SEPTI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MARCH 10th, 1896.

Editorial.

MEDICAL APPLICATION OF ROENTGEN'S DISCOVERY.

Exactly how far medical science will benefit from the so-called "new photography," remains to be seen. We have previously, in these columns, noted some of the uses to which it is applicable, or has been put, and as the facts of the "discovery" are made better known it would appear as if it might be rendered of practical utility in the diagnosis of obscure and uncertain fractures and other internal lesions.

The *British Medical Journal* assures its readers that Von Mosetig Moorhof, of Vienna, has taken photographs that exhibited with great clearness and precision the lesions accruing to a pistol shot of the hand, and likewise the location of the projectile; in another instance he was thereby able to detect the position and character of a puzzling malformation of the foot. Also that Lannelongue, of Paris, in the Trousseau Hospital, secured several interesting negatives—one, notably, of a diseased thigh-bone, the necrosed central portions of which were penetrated by the light, forming white blotches on the negative; another was that of a tuberculous affection of the hand, and though the disease had been previously diagnosed the photograph brought complete confirmation.

In the *Lancet* (London) the statement is made that in one instance a finger which had sustained a compound fracture and from which a sequestrum had been removed, was photographed, and the regeneration of the bone made visible; in another the position of a piece of glass imbedded in the tissues

was ascertained by the same method. Similar results are reported from other localities, notably Bern, where Kocher photographed a needle in a woman's hand, paralleling McLellan and Wright's case in Toronto.

In a recent issue of *Nature* appears a photograph made by Professor Nernst, of the University of Göttingen, which represents a human hand; the flesh appears very nearly transparent, while the bones, the gold ring and a piece of wire and glass tube are practically opaque—the ring and wire, which were in contact with the flesh of the finger, appear as if suspended in the air.

A SUIT FOR CONTRACTING TYPHOID FEVER.

The widow of a man who recently died of typhoid fever in Ashland, Wisconsin, brought a suit against the Ashland Water Company for \$5000 damages, alleging that the corporation permitted the water to become polluted with typhoid germs, and that her husband's death was due to this pollution.

There is little doubt that suits of this kind will in the future increase, and that damages will in many instances—and should in the majority—be obtained.

The city of Windsor, Ontario, is at the present moment suffering from ravages of typhoid, and the epidemic is daily increasing, simply because the city government has for two years refused to take appropriate measures to prevent the sewage from the Walkerville suburb from being drawn into the city's water-supply; even an efficient Health Officer and Health Board were removed because they insisted on looking after the welfare of the people, and an incapable Officer and inefficient Board appointed who are amenable to the criminal negligence and penuriousness of the Common Council.

Now the Provincial Health Board has taken a hand in the matter, and it remains to be seen whether a city council can continue to wantonly jeopardize the lives of the people.

A MOVE IN THE RIGHT DIRECTION.

The physicians of London, Ontario, have entered into combination whereby one and all refuse to any longer do *contract lodge*

practice. The opinion of the better class of medical men regarding this abominable custom is pretty well known, and it is desirable that some such agreement as entered into by the London physicians be made in every city in Canada and the United States.

The idea of giving medical service for from two to three dollars a year is preposterous—better by far give the service outright and show up the lodges for what they proclaim themselves to be, namely, associations of mendicants and paupers.

The great trouble is, and has been, that the older practitioners suffer little by this pernicious custom, and younger men have been "roped in" owing to their anxiety to establish themselves in practice. It would seem as if the former might at least give a helping hand to the latter and assist them to attain professional advancement in a more legitimate way.

BROMIDE ERUPTIONS.

A correspondent of the *Medical and Surgical Reporter* (Philadelphia) reports two cases of eruption as a result of the administration of bromides. One resembled chicken-pox, and the patient moreover was much emaciated. The other was a child apparently suffering from impetigo contagiosa.

In this connection it would be well to remember that Crocker gives as one of the diagnostic symptoms of bromide eruption that the lesions sometimes do not appear for days after the drug has been withdrawn, and may continue to appear long after its use has permanently ceased.

Another matter that is equally important in selecting a bromide is to know that the sodium salt is much less likely to disturb than any other, and moreover can be pushed to greater lengths.

THE JAPANESE MEDICAL SERVICE.

Surgeon-Colonel W. Taylor, Principal Medical Officer of the Southeastern Military District of Great Britain, recently delivered a lecture at Aldershot on "The Medico-Military Arrangement of the Japanese Army on the Field." He declared the regimental medical organization of the Japanese Army was far

superior to that of either Great Britain or the United States. The medical arrangements for saving life on the battle-field were perfect, no expense being considered too great to save a Japanese soldier's life. The bravery of the Medical Department was astonishing. He himself had seen a stretcher and bearer company attend to their work in a perfect storm of bullets, and they cleared a line of fire of eighty killed and wounded in about twenty minutes, besides rendering temporary medical aid before sending the wounded back to the field hospitals in the rear.

A discussion followed Colonel Taylor's lecture in which Sir William Butler and many other officers took part, and all agreed that Western nations had much to learn from the Japanese Army in the matter of medical service.

POISONOUS EFFECTS OF BORAX.

At the present time there are a vast number of preparations intended for the cure and preservation of foods, which depend for the claim advanced upon the large portion of sodium baborate contained. This fact has led Féré, of Paris—who has had considerable experience with the drug in the treatment of intractable cases of epilepsy—to investigate its physiological action.

He several times found it necessary to give large doses for long periods, and frequently met with persons who were peculiarly susceptible to the drug. The untoward effects were loss of appetite succeeded by burning pain at the pit of the stomach, buccal dryness, and eventually nausea and vomiting. Also a remarkable dryness of the skin was produced which not only favored, but in several instances caused, skin maladies, notably eczema; the hair also became dry and fell out, threatening complete baldness. The most dangerous result of the use of sodium baborate is its power to increase kidney disease, or to convert a slight renal malady into a fatal or malignant affection.

EDITORIAL NOTES.

Cum Grano Salis!—

A Doctor Vollum, of the Medical Department of the United States Army, is accredited

with the declaration that scientific demonstration shows that even complete cessation of the action of the heart and respiratory apparatus for a considerable time, with all other appearances of death, excepting putrefaction, fails to make it certain that life is extinct. He adds the recommendation:

Where autopsy or embalming has not been performed, it is well to place in the coffin a bottle of chloroform with a leaky stopper, in order to fill it with vapor to last a long time. I have after long attention to the subject become convinced that a considerable portion of the human race have been buried alive, and that such disasters are frequently occurring at the present time.

Is there not a suspicion of exaggeration on the part of Doctor Vollum? The query (and like assertions) regarding premature burial crops up with great regularity every few years and affords material for gruesome tales on the part of callow newspaper-reporters and hysterical female newspaper-correspondents. Upon this question, evidence—*real* evidence—has ever been exceedingly meagre. At the same time there is, of course, a bare possibility that premature inhumation does occur, perhaps once in a million times; and the question can always be set thoroughly at rest by awaiting the evidences of decomposition—this last should be the rule in any event.

Wonderful!—

A publication that professes to educate—to wit, the *Popular Science News*—is responsible for the following:

A doctor has discovered the curious fact that the skull of a man who has died from delirium tremens contains alcohol vapor. A small opening in the skull soon after death permits it to escape, when it can be ignited and burns with a bluish flame.

The same sort of “bosh” has of late been frequently reiterated in London, England, by a ranting female exponent of the anti-vivisection interests. Such a statement is about on a par with most of the science that emanates from platform enthusiasts who set out to convert the world to their own narrow ideas.

May the good Lord deliver us from idiotic science and from a woman who proclaims from every housetop that she has a *mission*!

Progressive Enumeration.—

In THE MEDICAL AGE of February 10th mention was made of a practitioner, of perhaps twelve years' standing, who as a self-advertising dodge reported a series of cases beginning with “No. 704212.” We then remarked that the author must have had at least 161 clients daily for every day during the year from and including the date of his graduation up to the hour in which the report was prepared; also that an average of thirteen hours must have been consumed daily in registering the same.

But we find after all that we underestimated this author's capabilities, for within thirty days he has reached case No. 13,105,264, which we consider evidence of a most “smashing business.” Such progressive arithmetic is entirely beyond our mathematical capabilities.

Similia in Mexico.—

A decree ordering the establishment of a homœopathic medical college has been signed by President Diaz. The course of study is to extend over five years, and the faculty to consist of homœopathic physicians appointed by the Government.

Mexico has already two homœopathic medical journals, and very creditable ones too; either will compare favorably with any like publication in any other part of the world.

Nuclein and Exophthalmic Goitre.—

Doctor John E. Bacon recently reported complete success in the treatment of a case of exophthalmic goitre by nuclein. After six months' treatment the patient's weight increased fourteen pounds, pulse dropped from 150 to 80 per minute, and respiration from 40 to normal. The Doctor insists the outcome is entirely due to the faithful course of treatment with nuclein.

Epilepsy.—

Doctor H. C. Wood declares true epilepsy is absolutely incurable. This tallies with the belief of all who are familiar with the malady. Fortunately a large number of cases presenting epileptiform symptoms are not true epilepsy, and the phenomena that follow upon traumatism do not, properly, permit of being so classed.

A Modern Problem.—

It is announced an epidemic of typhoid has made its appearance on the new United States steel cruiser *Chicago*. An exchange inquires if the plumbing of the ship is bad or the drainage of the Atlantic Ocean deficient?

For some reason, not understood, typhoid appears to be favored more by metal than by wooden hulls. Here is a point worthy of investigation.

Is it True?—

An item is going the rounds of the medical and lay press to the effect that half a drachm of carbonate of ammonia in a wine-glass of water, when administered to an intoxicated individual, acts promptly as an emetic and almost instantly sobers the unfortunate.

We should like to see the evidence that will corroborate this statement.

A Difference of Opinion.—

The *Charlotte Medical Journal* says the Sanitarium of the "Great Retired" at Washington "has met with a degree of success altogether unexampled in the history of private hospitals."

The *National Medical Review*, published in Washington, sarcastically remarks: "The enchantment of distance."

Tetanus.—

An exchange reports a case as having completely recovered under the use of hypodermatic injections of carbolic acid. Twelve drops of a two-per-cent. solution were injected every three hours until twenty-eight doses had been taken.

It is a pity that fuller particulars are not given.

Diabetes.—

West states that in this malady he has used with great satisfaction uranium nitrate in doses of one to two grains, administered twice daily, after eating, gradually increasing the dose until the glycosuria was diminished.

Meniere's Disease.—

Lemairey reports aural vertigo in a man twenty-nine years of age, which was completely relieved by the subcutaneous injection of pilocarpine nitrate.

Items and News.**Stop Killing Germs.—**

The sanguinary crusade against the poor little germ has gone too far. After all the mean things we have said about it, and the vituperations we have heaped upon it, this little interrogation point between two worlds—the vegetable and animal—has gone into an open court and bids fair to get a verdict not only of having a justifiable existence but of being a public benefit. Think of the lonely vigils of Faustus without their Mephistopheles, but with their incubators, sterilizers, test tubes, and what not, wasting their cerebral dynamics on uncanny incantations and midnight schemes of conquest and annihilation. And all for what purpose? Why, forsooth, as it now appears, to destroy the ally and the friend of man. And the ingratitude of it! The base ingratitude of it!! If man's inhumanity to man makes countless thousands mourn, how many duodecillions of these little benefactors of the human race have been caused to mourn over the inflictions of man's mistaken wrath?

Animals fed upon sterilized foods, given sterilized fluids to drink and sterilized air to breathe, are now said to die with reasonable promptness. Babies fed upon pasteurized milk get scurvy and become constipated. Give us more germs, by all means. Make the indiscriminate sale of germicides a misdemeanor punishable by imprisonment and deprivation of germs for thirty days unless life is seriously imperiled by so long an abstinence. Let us eat, drink and breathe germs galore. Then will the white-winged dove of peace hover over hearth and home, and bucolic health shall gladden the hearts of the sons and daughters of men.—*Fort Wayne Medical Journal*.

Dietetic Rules.—

The *Quarterly Medical Magazine* relates a good story illustrating the way in which dietetic rules for the treatment of indigestion are handed on from one to another and regarded as infallible specifics:

Four men, unknown to each other, once met at the common table of a country inn; all paid evident attention to what they ate. One refused the soup, and remarked, "Sir A. B. forbids soup at dinner." Another objected to liquids, saying, "Sir A. B. advises that the meals should be taken dry." A third rejected the entrées and sweets, and sighed pathetically, "All kickshaws are tabooed by Sir A. B." The fourth, however, was observed to eat steadily through the dinner, and

to partake of all the good things with evident relish. "Sir," at last said one of his companions, "you do not seem to follow the dicta of Sir A. B." "No," was the genial reply of the man who had enjoyed his dinner, "for I am Sir A. B."

Mrs. Hart says she once had the audacity to tell this story to the great physician indicated, "and no one's amusement could have been greater or his laughter more hearty."

Benefits of Cider.—

The juice of the apple as a beverage has at times been looked upon with suspicion. Those who abstain through fear may be reassured by the results of the investigations of two French medical men, MM. Carrion and Cantru, who, among other gaseous beverages which they commend for certain peculiarities of digestion, speak most highly of cider. In certain forms of dyspepsia they claim it to be very desirable, especially where the process of digestion is too hurried; and for the gouty it is recommended as a corrective of the uric-acid diathesis. Gout is held responsible for so large a number of ailments nowadays that cider is entitled to much favor. —*Littell's Living Age*.

Next!

A gentleman in New Jersey had his appendix vermiformis removed, and found it to contain a large pearl, for which he was offered two hundred dollars.—*Exchange*.

[Where is Joe Mulhatton?—ED.]

Very Lucky Indeed.—

"I hear your husband has been out shooting. Did he have any luck?" asked Mr. Fitzroy of Mrs. Shiftless.

"Oh, yes. He saved two fingers of his right hand."

A Logical Sequence!—

Mr. Tulkinghorn: "There is a very fine picture of our minister in to-day's paper."

Mrs. Tulkinghorn: "Indeed! What has he been cured of?"—*Boston News*.

Low Tariff.—

The cost of drugs and medicines
Is having such a fall,
Cut prices will bring sickness
Within the reach of all.

Good Enough!—

The Health Department of Chicago advises its citizens to wipe their lips with "carbolized rose" water before kissing.

Book Reviews.

THE BADMINTON MAGAZINE. Price, 50 cents; \$3.50 per year. Longmans, Green & Co., New York.

The current issue continues to sustain the reputation of this journal as being head and shoulders above anything of its class heretofore published. The contents are: "An Old Virginia Huntsman," by A. G. Bradley, illustrated by John Beer; "Some Old English Games," by Antony Guest, illustrated by A. Ludovici; "Tiger-hunting Extraordinary," by Hendrik D. Knoblauch, illustrated by E. Caldwell; "The Early Days of Bicycling," by T. Maxwell Witham; "An Archer's Outing," by M. Thompson, illustrated by F. S. Wilson; "To Shoot or Not to Shoot," by Horace Hutchinson, illustrated by N. Arthur Loraine; "North-Country Hunting for Ladies," by Lady Mabel Howard, illustrated by G. H. Jalland from sketches by C. J. Cropper; "Amateur Fishing in Australia," by F. G. Aflalo, illustrated by C. Whymper; "The Downing of 'Ould Joe Bush,'" by Owen Rhoscomyl, illustrated by Morris Greiffenhagen; "Wolf-Children," by H. B. Neilson, illustrated by the author; "Old Sporting Prints," by Hedley Peek; "Favorite Meets," Anon., illustrated by N. J. Gibb. There are the usual notes by the editor ("Rapier").

LITTELL'S LIVING AGE. Price, \$6.00 per year. Littell & Co., Boston.

Taking, almost at random, an article or two from each weekly issue, we find "Five Weeks with the Cuban Insurgents," by Hon. H. Howard; "The Venezuela and British Guiana Boundary," by Hugh Robert Mill; "The Advantage of Fiction," by M. G. Tut-tiet; "The Sultan and his Priests," by Richard Davey; "The Rule of the Laywoman," by Mrs. Stephen Batson; "Some Seventeenth-Century Matrons and their Housekeeping," by Margaret M. Verney; "American Dislike of England," from the *Spectator*; "The Reign of the Queen," from the *Edinburgh Review*; "The Wild Wa.—A Head hunting Race," by J. George Scott, C.I.E.; "The Seizure of a Turkish Flagship," by Demetrios Bikelas; "The New Photographic Discovery," by Silvanus P. Thompson; "How to Read," by Arnold Haultain; and "Germany Under the Empire," by A. Eubule Evans. But these only make a dozen or so of the forty-four papers, including fiction, which appear in this one month's issue.

Its recent reduction in price brings this magazine within the reach of a much larger circle of readers.

THE YOUTH'S COMPANION. Price, 5 cents; \$1.75 per year; Perry Mason & Co., Boston.

The February 13th issue contains a notable article on "The Bar as a Profession," by Lord Russell, Chief Justice of England. It is easy to see the personality of a distinguished jurist and great man in each statement. The paper is unusually readable and is evidently a retrospective view of his own experience. "The bar does not, indeed, hold out promise of great wealth," he says, "but has distinctions and adequate means in store for those who bring to its pursuit necessary qualities of mind and character."

The issue for February 20th is a Double Number. Justice Oliver Wendell Holmes, of the Massachusetts Supreme Court, writes a most interesting supplement to the Lord Chief Justice's article, presenting the subject from an American point of view. Appended to this is a brief rejoinder by Lord Russell, and a final comment by Justice Holmes.

Each issue of *The Companion* contains one or more articles of exceptional value, written by the ablest and best known men and women of the age.

THE ECLECTIC MAGAZINE. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The March issue contains: "Mutual Aid among Modern Men," by Prince Kropotkin; "Three Cameos," by G. W. Stevens; "The Future of Politics," by Henry Dyer; "William Blake," by Alfred T. Story; "Travels to the Source of the New River," by Percy Fitzgerald; "The Gold Era," by W. B. Worsfold; "Socialism for Millionaires," by George B. Shaw; "Criticism as Theft," by William Knight; "Selborne," by W. H. Hudson; "Chateau Hunting in France," by Mrs. Courtney Bodley; "Real Interest of the Public in International Affairs," by C. D. Farquaharson; "The Diversions of a Sub-editor," by John Pendleton. There are also the following anonymous articles: "Impressions of a First Night;" "A Lady's Skating Tour in Holland and Friesland;" "Rachel and Leah;" "American Dislike for England;" and a story of the seen and unseen entitled "The Library Window."

SUN AND SHADE. Price, 50 cents; \$5.00 per year. The New York Photogravure Co., New York.

The January issue is a most delightful one. The cover contains an oil *fac-simile* entitled "A Note of Color"—miniature tonsororial artists. Another oil *fac-simile* is "The First Tooth," from a painting by Pindroit. Then follows "Viscountess St. Asaph," a photogravure from a painting by John Hoppner.

"The Close of Day" is a photogravure from a painting by Rousseau; "The Monk and the Maiden" is from a water color by Louis Hinton; "Upper Fall of the Plattekill," from a photograph by W. F. Dawson. A magnificent "Study of a Lion" is perhaps the handsomest photogravure of all. The "Temple of Isis-Philæ" is from a photograph by E. L. Wilson. Finally is a magnificent photogravure of a fan, taken from the original of the Metropolitan Museum of Art. There is not one of these pictures but is worthy of a frame, providing one does not care to keep them in a portfolio.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

The principal articles of the current number are: "The Rhyme of the Two Little Browns," by Mary E. Stone; "The Prize Cup," xix-xxiii, by J. T. Trowbridge; "Fire Fancies," by G. W. Carryl; "Into Port," by John M. Ellicott, U. S. N.; "Their First Moose Hunt," by Tappan Adney; "Little Hero of Peru," by Charles F. Lummis; "The Goodly Sword," by Mary S. McKinney; "Teddy and Carrots," xv, by James Otis; "What Lydia Saw," by Herbert H. Smith; "The Swordmaker's Son," x-xi, by William O. Stoddard; "On Parade," by Kate Stephens; "Sinbad, Smith & Co.," vi, by Albert Stearns; "The Lowest of Our Quadrupeds," by William T. Hornaday. There are also the usual verse and departments.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 a year. Houghton, Mifflin & Co., Boston.

The current issue begins two important series of papers—"The Irish in American Life," and "The Case of the Public Schools." Other articles are: "A Seminary of Sedition," by John Fiske; "Two New Social Departures," by J. M. Ludlow; further "Memories of Hawthorne," by his daughter; "New Figures in Art and Literature," by Edith Brower; There is a third of "French Roads," by Mrs. Catherwood; "A Holy Island Pilgrimage," by Eugenia Skelding. Fiction is represented by a second installment of "Country of the Pointed Firs," by Sarah Orne Jewett; "A Public Confession," by Ellen Macubin; and the conclusion of "Pirate Gold," by F. J. Stimson.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

In the March issue F. Hopkinson Smith contributes an article entitled "A Personally Conducted Arrest in Constantinople;" "Tom Grogan," by the same author, is concluded

"Sir George Tressady," by Mrs. Humphry Ward, is continued; also William M. Sloane's "Life of Napoleon Bonaparte;" "Stamping. Out the London Slums" is by Edward Marshall; "On the Track of 'The Arkansas Traveler,'" by H. C. Mercer; "John Randolph of Roanoke," by Powhatan Bouldin; "The Elder Dumas," by Emily Crawford; "A Winter House-Party," by Mrs. Burton Harrison; "The Perils of Small Talk," by Allan McLane Hamilton; "Ways and Means in Arid America," by W. E. Smythe; "Vanderdecken," by Benjamin S. Parker; "Enter the Earl of Tyne," by C. B. Fernald; "Our Foreign Trade," by P. T. Newbery. There are the usual departments and poetry.

APPLETONS' POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

In the current number appears a translation of Doctor Wilhelm Oswald's address on "The Failure of Scientific Materialism." There are installments of the series on "Taxation," by David A. Wells, and on "Professional Institutions," by Herbert Spencer; also "Exercise as a Remedy," by Doctor Henry Ling Taylor; and the conclusion of Professor W. K. Brooks's "Study of Inheritance." There is a scientific examination of the problems of "Acclimatization," by Professor William Z. Ripley; Professor E. W. Hilgard contributes an article giving the results of certain examinations of soils.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 a year. Charles Scribner's Sons, New York.

In the March issue "A History of the Last Quarter-Century in the United States," by E. Benjamin Andrews, is continued; also "Sentimental Tommy," XI-XIV, by J. M. Barrie. "Carnations" is by J. H. Connelly; "Sarasate," by M. L. van Vorst; "Florentine Villas," by Lee Bacon; "The Lost Child," by H. C. Bunner; "Miss Mary Cassatt," by William Walton; "French Binders of Today," by S. T. Prideaux; "British Opinion of America," by Richard Whiting; "A Chameleon," by Horace A. Vachell. There are the usual departments, "The Point of View," "The Field of Art," etc.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the March issue is "A Whim and a Chance," by William T. Nichols. It turns on an effort to find clues to property which has mysteriously disappeared with the owner's death. Clare E.

Robie sketches sharply "A Labor Leader." Others short stories are "Mis' Pettigrew's Silver Tea-Set," by Judith Spencer, and "Henry," by Mary S. Cutting. Oliver McKee considers "The Horse or the Motor;" Louis H. Sullivan "The Tall Office Building Artistically Considered;" Emily Baily Stone presents a picture of "Household Life in the Fifteenth Century;" Edward Fuller writes of "The Decadent Novel." The poetry of the number is by Carrie Blake Morgan, Clinton Scollard, and Richard Burton.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The current issue, under the caption of "Progress of the World," discusses editorially American and Foreign Affairs, chiefly political; the "Month's Events" are recorded concisely, and illustrated by numerous international cartoons; "Cecil Rhodes, of Africa," is a character sketch. Roentgen discusses the "New Photography." Under "Household Economics," science and art for American women is discussed. There is also a discussion of the "Political Machinery of France," a "Review of Canadian Affairs," and the "Story of a Caricaturist's (Bernhard Gillam's) Career."

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 a year. The Home Science Publishing Co., Boston.

The current issue contains: "To Market All on a Market Day," by Gertrude Menard; "A Lady of the Olden Time"—A. D. 1400—by Pamela Cole; "Women of Jamaica," by Allen Eric; "Rumford Kitchen Leaflet" (No. 6), by Ellen H. Richards; "Soil Factor in the Development and Prevention of Infectious Diseases," by Edward Playter; "Study of a Colored Servant," by Mary W. Fisher. Two other notable articles are "English Cooking Schools" and "A Factory Lunch Room." There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 a year. W. T. Comstock, New York.

The issue for February 22d contains: "Revision of the New York Building Laws;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture"—III; "The Tall Building Bill;" "In Streets and Papers;" "The Eleventh Annual Exhibition of the Architectural League"—I; "Award of Prizes for the New York Municipal Building;" "Legal Notes;" "Fever Hospitals"—IV; "Societies;" "Obituary;" "Personal;" "Industrial Progress."

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Co., Minneapolis.

The March issue contains a "Biographical Sketch of Charles Wachsmuth," by C. R. Keyes; "The Structure of Certain Paleozoic Barnacles," by J. M. Clarke; "The Mineral Deposits of Eastern California," by H. W. Fairbanks; "Note on the Discovery of a Sessile Conularia," by R. Ruedemann; "A Second Titanichthys," by E. W. Claypole; "Thickness of Paleozoic Rocks in the Mississippi Basin," by C. R. Keyes; "Microscopic Characters of the Fisher Meteorite," by N. H. Winchell. There are also the usual departments.

OUTING. Price, 25 cents; \$3.00 per year. Outing Publishing Company, New York.

The March number opens with a spirited description of "Duck-shooting on Savannah River." Other articles which appeal to sportsmen are: "Wild Sport in Ceylon," by F. F. Dixon; "Among the Russian Bears," by Fred. Wishaw; "Model Yachts," by Franklin Bassford; and "Faculty Control of Athletics at English Universities," by J. W. Laing and W. W. Bolton. The fiction and travel departments are also very interesting.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the March issue there appears: "The Life of Cecil Rhodes;" "The Señorita of the Sword," descriptive of Jaquarina, the Spanish-American swordswoman; "A Winter on the Riviera;" "Lumbering in the Adirondacks;" "Club-houses for Women;" Mary A. Proctor's experience as an astronomer and lecturer; and the usual Fashion Department. The fiction includes a story by Edgar Fawcett.

ROYAL NATURAL HISTORY. By Richard Lydekker. No. 3, Volume 2; pp. 96. Price, 50 cents; \$1.00 per year. Frederick Warne & Co., New York.

This issue offers two beautiful plates—one of the European bison, and the other of the bharal, or Barbary maned sheep. The account of the Javan ox, begun in the previous number, is continued; then is taken up the American bison, the Cape buffalo, the short-horned buffaloes of Sierra Leone and the Congo, the Indian buffalo, the anoa, and the musk ox.

Of the different species of sheep described, we note the American and Kamschatkan forms, the Mongolian and Thibetan argali, the wild sheep of the Pamirs, the Urial, Armenian and Cyprian sheep, the moufflon, bharal, and the varied domestic forms. The goat family is represented by the tur, or wild

goat of Caucasus, Spanish and Persian forms, the ibex, the Alpine, Himalayan, Arabian, the Markhor, tahr, Nilgari, and the domestic species; closely allied are the gorals, serows, takins, Rocky Mountain goat, chamois—these last, in fact, furnish a link between goats and antelopes.

Of the antelopes proper are described the eland, kudu, harnessed—so-called because of their peculiar marking,—nilgai, addax, gemsbok, sabre-horn, sable and roan antelopes.

The issue for September 15th has a plate of the dorcas gazelle, and another of South African giraffes. Chapter XXI opens with the gazelles, among which are classed the springbok, dorcas gazelle, Indian, Persian Grant's and Thompson's gazelles; nearly allied is a remarkable species known as Clarke's antelope; still more remarkable is Waller's gazelle, or the gerenuk. The chiru or Thibetan antelope, is another very interesting species, as is also the saiga. Other are the black-buck, palas, reitbok, water-buck, rhebok, klipspringer, steinbok, Beni-Israel (Salt's antelope) duikerbok, four-horned antelope, wildebeests, hartebeests, blesbok, bontebok, Swayne's and Hunter's hartebeests, and the korigum (Senegal antelope). Chapter XXII opens with the giraffe family, first of which is the prongbuck, next the giraffe proper, and finally the extinct families allied to the foregoing. Chapter XXIII deals with the deer tribe, first of which is the red deer of Scotland and Northern Europe, next the wapiti (called in America the elk). In the Japanese deer group we find the Manchuria, the Formosa, Caspian, and dybouski's deer. Then follows an account of the chital, the Indian spotted deer, the samburs—a species peculiar to Southeastern Asia,—the swan deer, which includes Schomburgk's, Eld's and David's deer. To the fallow deer group belong the ordinary deer of Europe, America and North Africa, the Persian fallow, an extinct Irish deer (sometimes known as the Hibernian elk). In the Muntjac group are found the Indian muntjac, hairy-fronted muntjac, Fea's muntjac, Sclater's muntjac, the first three being peculiar to China, the latter to Eastern Thibet, and nearly related to the latter are two small deer peculiar to Chinese territory, known as Michie's and the Thibetan tufted deer. The Reindeer comprises the creature of this name peculiar to Northern Europe, and the two species of caribou inhabiting North America. The European elk and American moose are considered as identical, which they are in fact. The part closes with an account of roe deer, which belong to Europe, and the Chinese water deer.

Therapeutic Brevities.

Value of Caffeine.—This medicament was in high vogue several years ago, among physicians, as a heart tonic and diuretic; at present it has fallen into eclipse, having lost its popularity on account of the many worthless preparations of it on the market. I have never been disappointed with it when I have P. D. & Co.'s preparation, and always prescribe it with confidence when I am sure of this make. Caffeine is noted for its power over the circulation and the secretion of urine. It is a strong vaso-motor stimulant; through this part of its physiological action blood-pressure is raised, the capillary circulation materially quickened, and the force of the blood in the veins materially augmented. It is highly valuable in valvular disease and the various dropsies that attend this pathological condition.—The dropsy passes away by virtue of the activity that is brought about in the paranchymatous tissues, and the movement of the lymph through the action of caffeine, also the increased action of the epithelium of the tubules and of the glomeruli. Caffeine is a diuretic in a secondary sense—i. e., its action in this direction is owing to heightened blood-pressure in the renal arterial circulation and the vena recta, that embrace the convoluted tubules. It augments the force of the capillary circulation and thus drains the tissues by attracting the fluids in the lymph and extra-vascular spaces. Its value in dropsies arising from heart disease is admitted on all hands, some preferring it to digitalis in feeble heart. I have frequently known it to rejuvenate a weak heart and set up a most profuse diuresis, even after the flow of urine had been greatly diminished in consequence of the low blood-pressure. The dropsy is secondary, and is removed when the cardiac action is strengthened. I often combine caffeine with corn-silk and collinsonia. The dose of the citrated caffeine is from one to three grains. Probably the smaller dose is the safest to begin with, then gradually increase it up to three grains; higher than this I doubt the propriety of going. In dropsies dependent on hepatic troubles, caffeine is of no value.—JOSEPH ADOLPHUS, in *Georgia Eclectic*.

Some New Vaso-dilators.—In the Bradshawe Lecture, Doctor J. B. Bradbury gives an account of a research he has conducted with a view to discovering some substance which might be used for the purpose of causing a continued dilatation of the arterioles,

and consequently a prolonged diminution of blood-pressure. Starting from the fact that the alcoholic nitrates are all, in so far as they have been examined, vaso-dilators, Doctor Bradbury argued that the desired substance might possibly be found amongst the nitrate derivatives of the higher alcohols, and proceeded to test a number of these substances. As a result of his experiments he has selected Erythrol nitrate and Mannitol nitrate as substances having a prolonged dilating action on the arterioles. Neither of these is anything like so prompt or so energetic in its dilating action as Ethyl or Butyl nitrite, and neither is therefore of value in giving ready relief in attacks of angina pectoris. But, on the other hand, the arterial tension which begins to fall about fifty minutes after the administration of a dose of Erythrol or Mannitol nitrate continues to fall for fully an hour and a half, and does not regain its normal height until fully five hours have elapsed. In the power of maintaining continuous low tension these substances are thus in advance both of nitro-glycerin and sodium nitrite, the action of each of these latter being exhausted in about two hours after administration. Doctor Bradbury is therefore of opinion that his research has increased our resources for preventing attacks of cardiac pain associated with increased arterial tension, and for lessening the risks which attach to the high tension of chronic renal disease. The dose of each of these organic nitrates is one grain repeated every four or six hours. They are best administered in solution in alcohol.—*British Medical Journal*.

Prostatic Hypertrophy—Resection of Vas Deferens.—The solidarity existing between the testicles and the prostate gland is purely functional, for the circulation and innervation of each of these glands is independent and different in origin. It is natural to suppose that the physiological isolation of these organs by the suppression of the vas deferens would be sufficient to obtain effects analogous to those realized from ablation of the testicles. Last June I made bilateral resection of the vas deferens in two patients, the first of whom had suffered for ten years from incomplete retention, and in whom last summer micturition had become so imperative that a catheter had to be constantly used, more than once wounding the canal in effecting a passage through the prostatic portion of the urethra. Rectal examination revealed considerable hypertrophy of the prostate. A few days after the operation the frequency of micturition diminished notably and the catheter could be passed with more ease. At the end

of a month the gland had decreased in volume. The second patient came in about the same condition, and the operation gave certain relief, but the prostate has not yet changed much in volume. In both patients the testicles remain normal. M. Legueu performed the same operation on a patient who had suffered from complete retention for a month previously, and the man was able in a month to dispense with the use of the catheter for ten days at a time.

The operation, although it cannot pretend to radical cure of hypertrophy of the prostate, may yet take rank among measures intended for the relief of certain complications of the affection.—M. GUYON, in *Medical Press and Circular*.

Venesection in Chloroform Poisoning.—In reading the constantly recurring accounts of death from chloroform, I have never noticed that bleeding the patient has been tried. As a rule, in these reports there is no account of a post-mortem examination, but in some I have noticed that the left ventricle is stated to have been empty and the right full. It strikes me that if the engorgement of the right side could be relieved there would be a much greater chance of the patient's recovery; and this can be done by venesection, which, if desired, might be supplemented by galvanism to stimulate the heart's action. No harm, at any rate, would be done by bleeding, as none of the usual remedies have any beneficial effect, the patient always dying if the pulse ceases before the respiration. I should recommend opening the jugular vein as more directly relieving the heart.

Many years ago, when I was house-surgeon at the Children's Hospital, Shadwell, I noticed that at the post-mortem examinations of children dying from morbus cordis, the right side of the heart was engorged and the left empty, although just before death the child had been pale and not at all cyanotic. I determined to bleed in the next case of impending death from this cause. A few nights later I was called to a child with morbus cordis—I forget the particular form—and found him pale, pulseless, and apparently *in extremis*. I opened the jugular vein, and with difficulty got the blood to flow, but after a very little blood had come the patient roused up and seemed much relieved; by the next morning he was quite himself again.—F. H. SPOONER, in *The Lancet* (London).

Passiflora.—This is an excellent remedy to prescribe in those intractable cases of epilepsy and other convulsive conditions that

perplex the physician from time to time and for which it is so hard to prescribe with any satisfaction to either physician or patient. The keynote for its employment is, of course, spasms. It is common practice with me to combine it with skullcap, one part to ten of the latter, or with about three parts of cannabis Indica, or with both of these. I employ it mostly in chronic cases, and even paralysis agitans has been retarded for years. In a few cases of spinal meningitis it acted fully as well as, and I think more quickly than Calabar bean, both in connection with gelsemine. In insomnia I generally combine it with skullcap, perhaps on general principles, perhaps from habit, but with very good, although not always immediate, results.

In reasonably large doses it has effected some brilliant cures in horses suffering from various kinds of tetanus.

I have one thing to complain of, and that is an unaccountable nausea, retching and vomiting that occasionally follows its use—more nausea than vomiting; which seems to point to cerebral action rather than direct effect upon the stomach or its nerves. It is quite troublesome at times, especially in case where I desire to continue the treatment for a long time, and, as opium is generally contra-indicated in such cases, I have to rely upon tea made from popped corn, which I also find the best remedy in obstinate vomiting in pregnancy; that simple remedy generally checks the trouble.—DOCTOR PHARES, in *The Country Doctor*.

Chloroform in Labor.—It has been the experience of those connected with obstetric clinics that in quite a number of cases laceration of the vagina and perineum may be avoided by a little patience on the part of the obstetrician and the judicious use of chloroform. This is particularly the case in primiparæ. The fœtal head, covered and generally preceded by the bag of waters, makes an extremely good dilator, and ample time should be allowed for it in its passage through the soft parts. The patient can be easily controlled by having her lie on her side with her back toward the physician, while he makes gentle manipulation of the perineum in order to increase its distensibility. So long as the patient is making ordinary bearing-down efforts, and the head is felt to advance slowly with each pain and recede slightly or remain quiescent in the intermission, no anæsthetic is required; but if the head continues to steadily advance without any period of rest or if after a short, quick advance the patient makes a great outcry of pain, chloroform or ether should be given. The anæsthetic has

double effect: it stops the advancing presenting part, and it gives the soft parts time to dilate. Chloroform has a more relaxing effect than ether on the tissues of the vagina and perineum, and is less of a uterine stimulant; it is also more easily controlled, and by it the pain sense is diminished to a greater degree without the production of unconsciousness.—*Philadelphia Polyclinic.*

Suture of the Vas Deferens.—Parlavecchio, in operating for a right strangulated hernia, had the misfortune accidentally to lacerate the vas deferens. To remedy this, he thereupon cut the two ends of the vas obliquely, so as to form a larger surface, and sutured them together with four Lembert sutures of fine silk. Torsion of the vas was carefully avoided, the stitches held well, and beyond the application of a scrotal suspender no special modifications in the ordinary post-operative treatment were adopted. The wound healed by first intention. Two years after, the hernia was quite cured, there was no swelling, no cyst of the vas deferens, no diminution of sexual desire, no atrophy of the testicle, no loss of sexual vigor, and no disturbance of micturition or defæcation. The author was unable to examine the state of the prostate *per anum*, but there were no symptoms pointing to any alteration in that organ.—*Indian Medical Record.*

The Subcutaneous Administration of Arsenic.—Fowler's solution is not suitable for hypodermatic use, as it is liable to cause pain and inflammation—partly because of its mode of preparation, and partly because it is a fit soil for molds. Where it is desired to employ this agent subcutaneously a one-per-cent. solution of arseniate of soda (prepared by boiling one gramme acidum arseniosum with five cubic centimeters normal soda solution until it is completely dissolved) is best; this solution when made must be diluted till it measures 100 grammes filtered; must be sterilized and kept in small glasses (with cotton-wool stoppers) each containing two cubic centimeters. The initial dose of this solution is 0.25 Cc. once daily; after a few days two injections are made daily, and the dose is gradually increased until a whole syringe-ful is injected twice a day.—VON ZIEMSEN, in *Quarterly Medical Journal.*

Strychnine in Pregnancy.—I have successfully used strychnine in sixteen cases for the correction of weak labor-pains, in doses of $\frac{1}{32}$ to $\frac{1}{16}$ grain twice daily, at intervals dur-

ing the last six or eight weeks of pregnancy. Four of these cases were anæmic primiparæ from nineteen to thirty-two years of age, with weak muscles; three were multiparæ under thirty years, with habitual weak labor-pains; four suffered from chronic metritis and had been pregnant at intervals of from three to twelve years; one had a small uterine fibroid; two had flabby uterus and relaxed abdominal walls; one had tertiary syphilis and general debility; another, diseased appendages with hysteria. In two primiparæ the forceps had to be used, and in one the child was dead; but in all the other cases delivery was rapid and regular and the children lived. The third stage lasted from ten to twenty minutes, and post-partum contraction of the uterus was excellent.—OLENYN, in *Protocol of the Medical Society of Tombow.*

Calcium Chloride in Pneumonia.—Crombie has shown:

That in lobar pneumonia calcium chloride reduces the temperature and keeps it within safe or normal limits in spite of the continuance of the physical signs:

That there is a tendency for the morbid process to be arrested at whatever stage the drug is given in efficient doses, and that the course of the disease is thus shortened or rendered milder:

That there is a singular freedom from all anxiety, distress, and danger, a freedom not usually associated with continuous high temperatures:

That there is a corresponding reduction in mortality.

The amount of the drug used is from sixty to ninety grains per diem, dissolved in water, in from ten- to fifteen-grain doses.—*The Practitioner* (London).

Quinine in Chorea.—Recently the *Boston Medical and Surgical Journal* detailed eight cases of chorea treated with quinine administered in doses of from six to eight grains daily; no other measures save hygienic were employed. In one case there was complete recovery in a week; in another, treatment was prolonged for ten weeks. In five cases where quinine proved ineffectual, arsenic was substituted with benefit. With the exception of the case that recovered within a week, the results of quinine were neither remarkable nor satisfactory, consequently particular virtues in this malady cannot be attributed to this drug. The hypothesis that it acts by stimulating the inhibitory motor action of the spinal cord is not tenable.—*Archives of Pediatrics.*

Bromoform in Whooping-cough.—Fiertz lays down the following rules:

In children under ten years, as many drops of bromoform as the child is years of age, *plus* two, should be given every six hours—best in a little sweetened water:

If after eight days the number and intensity of the paroxysms have not diminished, each dose may be increased by one or two drops:

After the paroxysms have disappeared, the bromoform must be continued in the same doses for a fortnight longer; then decrease the doses very rapidly, but the treatment should not be discontinued suddenly.

If the paroxysms occur only at night, the remedy need be given only every eight hours.—*The Practitioner*.

Actinomyces.—In two cases the operative treatment and internal medication with sodium and potassium iodide yielded no result. Resort was then had to hypodermatic injections of potassium iodide in connection with its internal use. Two to four syringefuls of a one-per-cent. solution were injected at intervals of from eight to fourteen days. In one instance complete relief was had in less than sixty days; in the other the relief was only partial, yet the part surrounding the navel alone remained infiltrated. In case of actinomyces of the walls of the stomach the subcutaneous injection of the iodide will probably be found sufficient without resort to internal administration.—DOCTOR RYDYGIER, in *Novosté Terapii*.

Foreign Bodies in Throat.—The difficulty of removing fish-bones and similar obstructions impacted at the lower end of the œsophagus is well known, and various mechanical measures and appliances have been invented to deal with the difficulty. One of the most simple, however, and, as reported, one of the most effectual, is to administer to the patient a pint of milk, and forty minutes afterwards an emetic of sulphate of zinc. The fluid easily passes the obstruction, and is, of course, rapidly coagulated in the stomach into a more or less solid mass, which, on being ejected, forces the obstruction before it and so effects its removal.—*Medical Times*.

Resuscitation of New-born.—In some cases, weak, anæmic children born asphyxiated can best be resuscitated by immersing them in water as hot as can be comfortably borne by the finger.—Mustard may sometimes be added with advantage. When the heart-beat is feeble,

a stream of water, not so hot as to burn the skin, should be poured upon the thorax and abdomen. Artificial respiration should, of course, be made. Attempts at resuscitation should not be discontinued until the heart-beat entirely ceases and the infant's body becomes progressively colder. Faradic electricity may form a useful adjunct.—*Polyclinic*.

Asthma.—At the moment of the attack, spray rapidly the back of the patient with chloride of methyl, from above downward and from below upward. The attack will cease in a few moments; if not, spray lightly the upper part of the chest. If the skin be delicate, as in women, cover the parts with a bit of fine gauze and make the strength of the spray proportionate to the strength of the patient and the violence of the attack.—DOCTOR TSAKIRIS, in *Medical Record*.

Dietetic Treatment of Chronic Heart Diseases.—For fifteen years I have insisted on the importance of restricting the amount of liquid ingested by patients with heart disease. Such a restriction, often, alone suffices to bring about compensation, and in many cases in which such drugs as digitalis are beginning to lose their power, it is restored by making the liquid ingesta correspond to the excretion.—GLAX, in *Wiener Medizinische Presse*.

Intractable Facial Neuralgia.—In six cases Doctor Keen broke up the Gasserian ganglion after other operations had failed to bring relief from pain. The relief was permanent for twenty-six months in the first, and eighteen months in the second; in the fourth and fifth cases, for seven and two months respectively; the third died from infection of wound.—*American Journal of the Medical Sciences*.

Thyroid Treatment.—Excellent as are the results of the thyroid treatment, it is nevertheless attended with certain risks. The thyroid juice, in large quantities, acts as poison on the heart, as is proved by the sudden deaths which have supervened upon ingestion of the medicament.—DOCTOR BÉCLERE.

Ringworm.—Common salt, applied in solution to scalp for five nights successively washing off next morning with ten-per-cent. boric-acid soap, relieved three cases in less than a month.—DOCTOR F. J. REILLY, in *British Medical Journal*.

Medical Progress.

SO-CALLED CANCER INSTITUTIONS.—Doctor Nathan Jacobson, of Syracuse, in a paper with this title, describes the extravagant claims made by these "shops." Thus, one well known institution of this kind states in its circulars, that the surgeon fails to cure 95 per cent. of cases of cancer, and that he does not know after operation whether or not he has removed all of the disease.

A unique opportunity presented itself to the Doctor for gaining an insight into the workings of one of these places. A patient, formerly under his care for carcinoma of the breast, was admitted to this institution in September, 1893. After the first "application," the patient suffered intensely for six hours or more, and similarly after the succeeding treatments. She underwent this torture for fourteen months, and on November 14th, 1894, was in such a weakened condition that she was carried out and transported home. At this time the medical attendants at this cancer institution declared her to be entirely free from malignant disease; yet when seen by Doctor Jacobson, six days later, there was extensive scar tissue over the mammary region, and midway between the mammary and axillary lines was an unhealed area; there were patches of dullness on the side of the chest, and the entire right lung was infiltrated. This patient died thirty-nine days later. After her death, when she was placed in the supine position, a large quantity of serum poured out of the chest from the unhealed area on the left side, which was found to open directly into the pleural cavity. The left lung was found to be filled with small secondary deposits, but at no place was there a direct extension inward from the surface, and there was no involvement of the ribs. The right lung was saturated with secondary growths.

The interesting and valuable part of Doctor Jacobson's paper is a table of statistics carefully and honestly compiled by the husband of the patient whose case he reported. Of twenty-six patients in this institution at the time his wife entered there, ten were dead at the time the cases were tabulated, three more had recurrences, and seven believed themselves to be cured.—Of the latter, four were noted as apparently trifling cases. This man had paid for professional services alone \$50 a week for these fourteen months. The names and addresses of all these patients had been noted, so that every single case could be followed.—*American Medico-Surgical Bulletin*.

CORTICAL REPRESENTATION OF THE MOVEMENTS OF THE VOCAL CORDS.—In the Proceedings of the Royal Society appears an abstract of a paper by Doctor Risien Russell that is of peculiar interest, inasmuch as it gives new information as to the cortical representation of the movements of the vocal cords. Hitherto an adductor centre only has been supposed to exist, but Doctor Russell's researches make it evident that other movements also are represented in the cortex. It was found that both in the dog and also in the cat there existed a focus, excitation of which resulted in adduction of the cords, and near it another, excitation of which resulted in abduction of the cords. The movements in the cat were quite easy to differentiate. In the dog, however, it was only after the adductor fibres in the recurrent laryngeal nerve had been cut that abduction could be produced. Sometimes, however, it was not necessary to do this, as it was found possible to evoke the movement without it. Another effect also was found to be produced in the cords—viz., acceleration of their movements—which it was found difficult to differentiate from abduction. It was further found that in the anterior composite gyrus below the abductor centre a focus existed, excitation of which caused the cords to be first brought into a position of moderate adduction, to which were superadded rapid, short, to-and-fro excursions. Also that in the peripheral part of the area marked out by Spencer as related to arrest of respiration, three foci existed, the most anterior of which was responsible for arrest of the cords in adduction—i.e., in the expiratory stage of their excursions; excitation of the area behind this caused arrest in abduction—their inspiratory position; and stimulation of the most posterior focus caused intensification combined with acceleration of the movements of the cords when stimulated. Many other little points are dealt with in this paper, but the main results are those just given, and it will be seen that they constitute an important addition to the facts of cerebral localization. Doctor Russell is to be congratulated on the fact that the centre for the vocal-cord movements has now been differentiated by him in a manner similar to that in which he has differentiated that for the ocular movements.—*The Lancet* (London).

GEOPHAGISM IN CHILDREN.—A very interesting paper on this curious habit is contributed by Doctor John Thomson to a recent number of the *Edinburgh Hospital Reports*. He gives some account of the habit as observed by travelers in different

parts of the world and by agriculturists among unhealthy young animals, especially lambs. He finds it occurs in two classes: In cases of ill-health from tuberculosis, etc., anæmia being almost always a prominent symptom: In healthy children, the habit being formed in infancy and disappearing spontaneously when the children are about three years old. Doctor Thomson regards the habit in the latter class as analogous to thumb-sucking, perpetual rocking to and fro, or constant rolling in bed, in which some children find delight, and which they abandon when they pass out of infancy. In cachectic cases it has been thought that the habit might be started by an instinctive craving for earthy salts, such as lime and iron, but the evidence is not conclusive. The materials selected in Doctor Thomson's cases seem to have been chiefly wall-plaster and cinders. One child varied this last pastime by pushing the hearth brush into the ashes and then licking it off as if a great delicacy. The habit, as is well known, is very common among idiots and imbeciles, but the cases reported by Doctor Thomson were free from mental disorder. Even where spontaneous recovery did not occur, a very short period of treatment in hospital was sufficient to break the habit. Dirt-eating may, however, lead to serious consequences when the material eaten—such as the soil—contains deleterious matter. This is seen among the native Egyptians, who, observing the marvellous fertilizing power of Nile mud on their fields, imagine it must be equally nutritious for men, and habitually eat it, with the result of infecting themselves with the ova of anchylostoma, bilharzia, and other parasites.—*The Lancet* (London).

A RING ON PENIS FOR FOURTEEN YEARS!—

A most extraordinary case of a ring buried in the penis for fourteen years has been reported in the *Bulletin Médical*. In September last Doctor Leflaive was called to a patient who complained of not being able to urinate except by drops and with exquisite suffering. On being questioned the patient confessed that when twelve years old, at school, he passed his penis through a brass curtain-ring, when the organ swelled considerably, so that the ring could not be withdrawn. In spite of his sufferings the boy kept the matter quiet. By degrees the ring ate its way through the skin into a circular groove, and in course of time the parts healed completely over it, so that it was lost to sight, his sufferings being all the while intolerable! Twelve years afterwards the patient married, but at the

first attempt to fulfill his marital duties the penis became greatly inflamed and contact very painful. He bore valiantly with his infirmity for two years longer, but at last had to appeal for medical aid. When examined the prepuce and the glans were found to be enormously swollen and of a phlegmonous aspect. It was impossible to find the meatus and all attempts at catheterism increased the agony. About the middle of the penis could be seen a circular white band representing a cicatrix, and at this point could be felt the ring embracing the cavernous bodies.

After having chloroformed the patient Leflaive made a longitudinal incision through the dense cicatricial tissue, which gave issue to a certain amount of pus; at the bottom of the wound could be seen the ring. A director was passed under it and the foreign body was cut through by means of bone-forceps and thus removed. The patient recovered quickly.

Nowhere else in the annals of medicine can be found a case of a metallic ring thus buried for so long a period without calling for surgical interference.—*Medical Press and Circular*

DEATH BY LIGHTNING.—The autopsy of a man struck dead by lightning revealed: An abrasion of the skin on the left side of the forehead where the current entered: Extensive hæmorrhages over the left parietal, frontal and temporal lobes: Fluid blood in the heart and veins: Hyperæmia of all the abdominal organs and chronic enlargement of the spleen probably malarial in origin: Brain substance very soft, but without œdema.

The results that have been found in recorded cases of death by lightning or by the electric current show that thereby the blood becomes deficient in coagulating power, which latter may even be entirely lost: Circumscribed or extensive hæmorrhages owing to the tearing of vessels in the course of the current are generally present: There is frequently destruction of parts of organs: The site of the entrance and exit of the current is usually marked by superficial or even deep wounds resembling burns: As regards the figures on the surface of the body, further investigation is needed to establish their direct relation to the electric current.—DURCK, in *Münchener Medicinische Wochenschrift*.

ETHMOIDITIS AS A CAUSE OF INSANITY.—Some years ago Doctor Rumbold called attention to the prevalence of ethmoiditis in many cases of melancholia. Of late many corroboratory articles have appeared, and

numerous cases that have been subjected to intra-nasal operations have been reported as either permanently relieved or greatly benefited. Formerly the drift of the profession was towards treatment by local applications alone; but the desired success not being attained, recourse has been had to surgical interference. The results obtained being so marked, a craze seems to have set in for operating, and many cases are now cauterized, curetted or burred that really need only appropriate local and constitutional treatment. While many brilliant and even startling results have followed operative interference, it is well not to promise or expect too much from such procedures. Always remember that the operation is but part of the treatment, and that local and constitutional remedies will have to be used in order that permanent benefit may be derived.—*Journal of Laryngology*.

PASTEURISM.—Since the theory, christened Pasteurism, was grafted upon medical science, it has produced no fruit. In fact, the death-rate from hydrophobia has steadily increased in and around Paris, the home of this bastard child of science. It has lived through a puny infancy by mere force of dogmatic assertion. It is easier to accept the conclusion of others than to investigate, weigh, consider, and confute. But before a theory receives the sanction of time and custom, it should demonstrate its practical value.

The Pasteur method cannot show a single cure. Let us take a hypothetical case. If A is bitten by a mad dog, is immediately placed upon this treatment, and escapes hydrophobia, what is proven? That he owes his salvation to the Pasteur method? By no means. Many individuals have been bitten by mad dogs who never had hydrophobia, and whose sole treatment consisted in the cauterization of the wound or the application of a mad-stone. On the other hand, a number of cases of hydrophobia have died under Pasteur's treatment.—*La Tribune Médicale*.

DIVISION OF PNEUMOGASTRIC AND PHRENIC NERVES.—I have collected fifteen cases in which the pneumogastric nerve was accidentally injured or involved in malignant disease.—Of these, eleven died, two recovered, and in two instances the result was not reported. Fifty cases I have tabulated, in which the pneumogastric nerve was injured during operations on the neck.—Of these, twenty-one died, twenty-seven recovered, and in two instances the result is unannounced. This

constitutes a favorable showing, which seems a sufficient contradiction of statements found in the older works to the effect that injuries to this nerve are necessarily fatal. In these cases it is impossible to say that in any instance death was due to injury to the nerve; and cases are included under deaths in which the fatal issue was so long postponed as to give valid ground for doubt. The preponderance of testimony is in favor of the comparative safety of attacking the nerve when involved in disease.—DOCTOR ROSWELL PARK, in *Annals of Surgery*.

INTERMITTENCY OF THE PULSE.—Leyden has attributed the intermittency of the pulse in mitral insufficiency to want of systole of the left ventricle, while the right ventricle at the same moment contracts. This condition he calls hemi systole. François-Franck, upon clinical and experimental grounds, alleges that mitral hemi systole—that is to say, a double pulsation of the right ventricle in opposition to a single pulsation of the left ventricle—does not exist in mitral insufficiency, either in man or in animals. Intermittencies of the pulse in mitral insufficiency—as in analogous arhythmic troubles without mitral lesion—are due to abortive systoles of the left and right ventricles, and these abortive systoles are synchronous. There is no mechanism of redoubled systole localized in the right ventricle, nor is it a supplementary systole of the right ventricle that leads to hypertrophy of the left ventricle in mitral insufficiency.—*Archives de Physiologie Normale et Pathologique*.

FIRST SIGN OF CONSUMPTION.—A rise of temperature of from one-half to one degree at some period of greater or less duration every twenty-four hours, may be regarded as the first symptom of pulmonary tuberculosis; it occurs previous to every other symptom, and before the general health of the individual is influenced to a noticeable degree. The temperature will be most elevated following bodily fatigue. Excluding other morbid conditions that would cause a similar elevation of temperature, it is safe to diagnose the case as one of pulmonary (or laryngeal) tuberculosis when this temperature has persisted for a period of two weeks and is associated with loss of weight and vitality, even though there has been no accompanying cough or expectoration, and though physical examination gives negative results.—C. W. INGRAHAM, in *Medical Record*.

POISONING BY MILK.—Doctor Robinson, of Dover, has recorded an instance of five adults, in a household of seven, being attacked with severe colic and vomiting. The symptoms lasted from two to four days, and in the worst cases there were other indications of poisoning. It was found that the victims had taken some milk which had been treated with boracic acid as a preservative. There were no other circumstances to account for the outbreak, and when some of the milk, mixed with *blanc mange*, was given to fowl, five out of nine died and the others showed signs of poisoning to a less degree. We have already drawn attention to the additions made to our food-stuffs for the purpose of preservation, and the danger, especially to infants and children, is a very real one.—*British Journal of Dental Science*.

LIGATURE OF FRACTURED CLAVICLE.—The fragments are first brought together, and then two holes are bored as near the extremities as possible. The two ends of a loop of silver wire are now passed through these holes; the loop is then bent over and below the bone as far as the two free ends, which are first passed through the loop and drawn to the upper surface of the bone in opposite directions, and then passed in opposite directions under the corresponding limbs of the loop on the upper surface, and brought together and twisted. The ligature is thus composed of two circular ligatures, two vertical threads perpendicular to the axis of the bone, and two horizontal threads parallel to this axis.—LEJARS, in *Gazette des Hôpitaux*.

CONSANGUINITY AND IDIOCY.—Consanguinity is commonly accounted a fruitful cause of idiocy, but comparative investigation shows: First, children having both mental and physical defects, the offspring of healthy unrelated parents: Second, perfectly developed children with no personal peculiarities whatsoever, the issue of consanguineous marriages. This would lead to acceptance of the statement that consanguinity has but little, if any, influence in the production of idiocy, unless there be some hereditary neurosis. Heath maintains that if the blood be pure and uncontaminated there will be no bad results from such marriages.—DOCTOR M. W. BARR, in *Philadelphia Polyclinic*.

ADENOID GROWTHS IN CHILDREN.—Nasopharyngeal adenoid growths are common in infancy as well as in childhood; they may

even be present at birth; but at this early age it is uncommon for them to give rise to the ordinary symptoms of nasal obstruction. Such growths should always be suspected if the infant's nose is broad at the bridge and faintly dimpled on each side at the upper border of the inferior lateral cartilage, and especially if is noticed any retraction in the inferior region of the thorax. Persistent snuffling in infants is no sign of syphilis in the absence of other symptoms, but rather of adenoids.—EUSTACE SMITH, in *The Lancet* (London).

INFLUENZA AND FEMALE SEXUAL ORGANS.—Müller noted the condition of the pelvic organs in 157 cases of influenza, twenty-one women being pregnant, seventeen of whom aborted. Of the non-gravid women, all but three showed symptoms of uterine disturbance, either hæmorrhage or aggravation of previous troubles. Hæmorrhagic endometritis commonly developed, as in cholera, typhus, and other infectious diseases. After the decline of the disease the uterus was frequently found to be enlarged, and evidence of chronic endometritis were present, which seemed to be directly due to the influenza.—*American Journal of the Medical Sciences*.

GREEN URINE.—Doctor Archibald Garrod exhibited to the Clinical Society of London a specimen of urine from a child who had sucked a piece of carpet colored with indigo.—The green coloration was due to the combination of the yellow tint of the urine with the blue of indigo. On passing the urine through filtering paper it lost much of its green tint, whilst the paper was stained blue; the indigo was, therefore, in suspension. Some years ago a favorite treatment for epilepsy was indigo to the extent of six drachms a day. Those patients had green alkaline urine.—*British Medical Journal*.

HOLDING CHILDREN FOR NOSE AND THROAT TREATMENT.—The child should be taken on the lap of the assistant, whose arms should pass beneath those of the patient and be clasped above his head. In this way the more the child struggles the more the assistant's hands are pressed down, and the more firmly the former is held. The patient's legs are held between the legs of the assistant, so that kicking is almost entirely prevented.

I have used this method for several years, and find it most satisfactory even for delicate operations.—DOCTOR FREEMAN.

The Medical Age.

VOL. XIV.

DETROIT, MARCH 25th, 1896.

No. 6.

Original Articles.

CRIMINAL ASSAULT.

BY E. B. WARD, M.D.

That the frequency of criminal assault in this State has increased since the age of consent was recently raised, is patent; and if the age is raised to eighteen there will be still more. Like all prohibitory laws, the tighter the law the looser the bond. And yet, a man who in reality so assaults a woman criminally *ought to be hung*.

But right here is an idea—disgraceful and disgusting though it be—that ought to be ventilated. It is safe to say that the Jackson State Prison contains more innocent men convicted of rape or criminal assault than all other innocents there, multiplied together—for the reason that in such cases there are usually but two witnesses, and the man's evidence goes for nothing, as a rule, while the woman's testimony is taken *verbatim* without regard to the previous standing of either person. Judge Lynch has killed more innocent men for this crime than for any or all others. Where both are equally guilty, they should suffer equally; and I undertake to say, what can be proven by a jury of competent physicians, that the deed is *physically impossible* without consent. It may be through terrorism, but more than criminal assault and attempt (without completion of intent) is impossible without consent, regardless of the relative strength of the parties.

The writer could cite a number of instances, but will give only one. Over twenty years ago a young farmer of good repute, living in this State, owning a good farm and in the prime of life, had occasion to send his wife away to Ann Arbor for medical treatment, where she was detained several weeks. In the meantime the husband and help kept "bachelors' hall," as no woman who valued her

reputation could be induced to work at such a place. At length it occurred to the hired man that one of his old consorts could be induced to come for sufficient wages, and so it was agreed with her, and in due time she was brought and commenced work. Whether it was the first or second evening of her stay I know not, but on a certain evening hard cider was partaken of very freely by everybody present until they all got gloriously drunk and "made a night of it," without supposing they were doing anything so outrageously bad—and they were all agreed. But on awakening in the morning the girl's sober sense came back, and she packed her grip, traveled to the county seat, and swore out a warrant for rape, and the men went up for seven years each. Now I submit that so long as there was no force used, the hired man having been familiar with her for years, and no such crime intended: Was she not as guilty as the others?

Not only men innocent of criminal assault, but men who have been absolutely seduced, have danced at the rope's end on account of the woman's swearing away the life of the man to shield her priceless reputation. When medical students we were charged, or should have been, to never allow a strange woman to be in the office alone with her doctor. Supposing surroundings are favorable for her purpose, and she makes outcry, and when assistants rush in claims criminal assault? How are you going to help yourself?

A woman partially under the influence of an anæsthetic imagines certain things, and actually believes them to be true, too! So she informs her husband, and the doctor or dentist is done to his death, when he is as innocent as a child. Such things have happened and will continue to, despite all law, so long as men take the risk of having no witness present under such circumstances.

The recent cases which have stirred De-

troit from centre to circumference are such as to excite more than ordinary curiosity, and occurring in some communities the life of the accused wouldn't have been worth a nickel after the first complaint—not a nickel. Judge Lynch would have declared him guilty whether he was or not.

It is not my desire to extenuate or palliate the crime one single iota, but rather to let it be understood that the prime mover in these cases isn't *always* the one who gets hung.

Laingsburgh, Michigan.

MANUAL REPLACEMENT IN THE TREATMENT OF CLUB-FOOT.

BY AP MORGAN VANCE, M.D.

Eight or nine years ago, when the subject of club-foot was being discussed by the American Orthopædic Association, Doctor DeForest Willard and myself were alone in championing the rapid replacement by manual force. Up to that time I had tried this method of complete replacement under anæsthesia, and by the aid of all possible tenotomies, only in a few cases. Since then I have had many cases, and I feel more than ever enthusiastic over the rapid results obtained, as with each new case I am able to discover some new way of grasping the foot, or new position in which I can better utilize the edge of the table or padded block.

For a long time I found it difficult to do as well with the left as I could with the right foot, as the former would be more awkward to handle and I could not exert as much force as was needed. I soon learned, in endeavoring to overcome this disadvantage, that all that was needed was a little more time and a prolonged effort, rather than the very rapid replacement that was possible with the right foot; that is, I found I could gradually tease the foot to the improved position by a longer and more patient manipulation, instead of at once crushing it. In a small proportion of cases, where the patients were older, the rapid replacement would result in complete tearing of the integument, corresponding to the incision in Phelps's operation. In all extreme cases a superficial necrosis or blistering of the skin on the inner side of the foot would occur, but I have had

no trouble from this, nor from the open wounds mentioned above, as an antiseptic dressing was carefully applied under the plaster boot. There is never any of the deeper sloughing that sometimes follows the use of the "twister."

It is very remarkable to what severe treatment a child's foot may be subjected, without evil result. This fact was impressed upon me many years before the introduction of these crushing operations, while an intern in the Hospital for the Ruptured and Crippled, practicing manipulation during gradual traction after tenotomy, as there taught. Invariably we would pair off cases of club feet and get up a rivalry between two boys or two girls, and it is very remarkable how much violence they would stand, and how little they were inconvenienced by it, never ceasing their play or in any way suffering from the severe usage, though submitting to treatment twice every day. Even after operation, as practiced now, only a few doses of opium were needed, and it was found difficult to keep them quiet long enough to allow the plaster boots to dry, and to ensure again too much use after the multiple tenotomies. I have often had cases walk in the boots for or five days after complete correction of extreme talipes equinus varus, seeming without pain or any great inconvenience.

It would be interesting to know just what amount of change is produced in the structures of the foot,—I am very sure that the tarsal bones are either broken or immediately changed in shape by the compression. In one case only have I broken the bones of the leg, and this was an extreme case of varus in a boy aged seven years, where a former phlegmonous inflammation followed an unskillful tenotomy, and the tissues were matted together and unyielding; the tibia and fibula gave way just above the epiphysis. A very much more rapid and also a very perfect result was obtained, as the extreme inversion of the foot was at once corrected by rotation of the lower fragments and the careful application of a plaster splint.

I have found that the older the child, up to ten or twelve years, the better the result, simply because a better grasp can be obtained, and retention in the new position is more easily maintained, than is possible in

the softer, smaller, and more yielding feet of younger children. The tendency to relapses is much less than after gradual correction, and this I suppose is partly due to deposition of plastic material or to formation of an organized clot in the spaces produced by the changed position of the bones.

Instead of years, which were often needed to secure relief by old methods, only weeks or months are necessary by the new. After the first week or two the ordinary club-foot shoe is substituted for the plaster boot, and worn until the foot does not show any tendency to relapse. I advise that the brace be worn at night for a long time after the cure seems finished, in all of these cases. In the older children who have walked much, large bursæ are always present. I believe it is just as well to do the operation at once as to treat the bursæ before. I have practiced both methods, and found the one as satisfactory as the other. This practice would hardly be safe with the Thomas' twister or the Morton instrument.

Lately I have learned that Lorenz, of Vienna, uses this method. Rather than rapid replacement he advocates prolonging each séance and gradually teasing rather than crushing the foot straight.

Louisville, Kentucky.

INFILTRATION OF THE LARYNX.

BY P. F. GILDEA, M.D.

It seems to me, from my observations, that the character and course of infiltration of the larynx, whatever its cause, depend upon position. If a tubercular or syphilitic deposit occurs where there is a large amount of sub-mucous tissue, with few bands, there is immediately a pronounced swelling and little ulceration; but if the deposit be in a part where there is little sub-mucous tissue, there is little swelling and rapid ulceration. I cite a case illustrating both of these types:

Mr. J. A.—; accountant, of good family history and habits, was pronounced to be tuberculous in the East, and came to Colorado Springs. A small cavity was found in the right lung, and consolidation in the left apex; voice almost gone, and throat in a pronounced tubercular condition. His lungs did

fairly well, but his throat did poorly, in spite of lactic acid applied by his physician. When sent to me, I found his lungs badly involved, with a large number of tubercle bacilli in the sputum; extreme emaciation; so weak that it was difficult for him to come to the office. The larynx was especially interesting, as there were large swellings over both arytenoids, the larger over the right; the right vocal band was motionless from involvement of the crico-arytenoid articulation; the left vocal band was ulcerated along its entire length, but still had some movement; the lower half of the epiglottis and the anterior commissure was the seat of an active ulceration. Breathing was slightly stridulous on exertion; no voice; all movement of the larynx was painful.

After cocainizing, I curetted the epiglottic ulcer thoroughly, and rubbed in pure lactic acid. This gave much discomfort; and after a week of soothing applications, as there seemed to be an increase in size and virulence of the ulcer, I curetted again and applied seventeen-per-cent. solution of nitrate of silver to the ulcerated band. There was improvement at once, but in a different way: the ulcer of the epiglottis healed in about a month, and in doing so it rolled the epiglottis in the long axis of the body. The chord, however, threw out small projections of granulation tissue, a slowly proliferating mass. In this condition I stopped treatment for a month, seeing the patient from time to time. At length, three months after last treatment, he came to me for what he called asthma, recently developed, and I found the epiglottis healed, the infiltrations stationary, and the granulation tissue on the left chord occluding the lumen of the glottis; the posterior commissure was also encroached upon by the granulating process. I introduced a Whistler's cutting dilator and opened the rima glottidis thoroughly,—I tried the ordinary cutting forceps (McKenzie's), but failed to reach the mass, as the patient had a long neck. The dilatation gave him instant relief, and I repeated it every third day until I was able to get an extra long forceps. With this I removed the growth piece by piece, until he seemed to have sufficient space through which to breathe. While operating it occurred to me that if I removed too much tissue, food, etc., might pass into the trachea, as the right band was motionless, and the left—on which the mass grew—was only slightly movable, and the epiglottis crippled; so I removed only enough to allow fair access of air to the lungs. It is now eight months since the operation, and there is no ulceration, no raw or proliferating surfaces. The glottis is patulous, the patient

seems in excellent health, and the pulmonary as well as the glottic processes seem arrested. The growth removed contained tubercle bacilli.

Colorado Springs, Colorado.

TETANUS—WITH REPORT OF A CASE.

BY P. C. COLEMAN, M.D.

The infectious nature of tetanus was apparently well established many years before the discovery of the bacillus tetani, for older authors relate many cases showing their belief in this teaching. In 1853 Larger saw a woman who had received an injury to the elbow by falling, while cleaning a farmyard, and in whom tetanus developed four weeks later; upon investigation it was found a horse affected with the disease had been stabled in a building opening into the yard where she fell.—Had this author been writing in 1884 instead of 1853, he could have accounted for the disease aside from the presence of the horse. This same writer also mentions that in a small village, where tetanus had not previously existed, five cases appeared in eighteen months, under quite different climatic conditions; one of these was taken to hospital, when two patients in the same ward became affected. In 1859 Betoli related that several slaves died from eating the flesh of a bull that had died of tetanus after castration. In 1870 Anger reported three puppies seized with tetanus, apparently infected by a horse that had the disease in the stable which the dogs also occupied. Verhoogen and Baert suggested the probability of transmissibility of the disease, and the likelihood of the agent of transmission existing in unclean instruments, quoting also the experience of Thiriart—who was unfortunate enough to lose ten cases of major operations before he determined the seat of infection to be in his hæmostatic forceps; sterilization by heat was followed by a complete cessation of undesirable sequences.

The supposed microbic cause of this disease was discovered almost simultaneously by Nicolaier and Rosenbach in 1884, the former finding the germ in earths, the latter in the pus of a patient. The identity of the soil bacillus with that obtained from pus from wound of tetanic patient was also demon-

strated by Kitasato in 1887. Rosenbach describes the germ as an "anaërobic micro-organism which presents a bristly appearance, with a spore at one end, which gives it a resemblance to a pin or drumstick."

The experiments made by a large number of workers, as found in recent literature, seem to justify the conclusions reached by Verhoogen and Baert, that

Tetanus is a specific infectious disease. Outside of the diseased organism the germ may develop in the soil; in addition, it may exist at different points on the coats of horses or other animals, in the dust of hay, on surgeons' instruments, etc. These different situations (soil, dust, horse, and man) constitute a closed cycle, from any element of which the bacillus may constantly or indefinitely emigrate, so that it is not possible to designate the point of initial departure.

Widenmann reports tetanus in a child following upon a wound of the cheek, as the result of a fall on ground covered with horse-manure; on the sixth day after the accident a splinter was withdrawn from the wound; six days later tetanus followed, and death occurred a little later. He then inoculated mice and rabbits with splinters of wood from the wound, and with soil from the ground where the child fell, obtaining typical tetanus in each case.

Pla, of Havana, declares of 4223 children born in 1889, 343 died from tetanus, a mortality he ascribes to the fact that the umbilical cord is dressed with water from the River Zanja, which flows through a richly cultivated country and receives the drainage from certain quarters.

Tetanus usually appears from one to two weeks after injury, though in some cases it is delayed even as late as a month after the injury has been entirely healed. The muscles of the neck and jaws are usually the first affected, though this is not always the case.—In one instance, in a girl sixteen years old, thrown from a horse, these muscles were not prominently affected at any time. There is usually opisthotonos, but this did not occur in two out of three cases coming under my observation. *Risus sardonius* is always present. There is one symptom which is very prominent, and which is regarded as pathognomonic, viz.: When the diaphragm is moved, a sharp, sudden pain shoots through the body from the ensiform cartilage.

The muscles remain hard and stiff, even during remission of paroxysms; temperature may not be elevated; intelligence is not usually impaired; death may occur during a paroxysm, from heart-failure or asphyxia, or later from exhaustion; the mortality is not less than eighty per cent. Strabismus is regarded by some authors as a symptom of grave import.

Case.—J. J.—, age 12 years, was brought to my office on December 8th, 1894, to have a wound in his foot dressed. A few hours before, while using a pick, the point of the latter was driven into his left foot, between the great and the second toe, at the metatarsophalangeal articulation. Evidence warranted the conclusion that the external plantar artery had been severed. I gave an antiseptic dressing, and ordered the boy to bed, with strict injunction to the mother to by no means allow him to be up until the wound was entirely healed; I endeavored to impress upon her the great danger growing out of such injuries. I did not hear from the case for ten days, when I was called to prescribe for stiffness of jaws and neck, supposed to be the result of cold, which had existed for two days. There was no difficulty in the diagnosis: Pulse sixty, temperature normal; unable to open mouth more than half-inch; wound red, dry, and inflamed, but from both exit and entrance it had been suppurating for several days.

I learned he was confined to bed for only two days, as he complained of no pain, and had been allowed to go to the stable-yard, where, in the manure scattered around, the enemy was lurking, awaiting the victim.

I immediately began the administration of eserine sulphate, in one-sixtieth-grain doses every four hours, gradually increasing until on the evening of the second day the boy was taking one-fifteenth grain. Hot applications were ordered to the foot, which was also dressed with bichloride solution, 1 to 500. But eserine evinced no relaxing effect on the muscles of the jaws, and on the night of the second day produced intense nausea, followed in a short time by excessive vomiting; the exhaustion was so great I feared immediate collapse. Up to this time the muscles of other parts of the body had not been involved, nor had there been the characteristic tetanic convulsions; but as soon as reaction set in, these phenomena appeared: the muscles of jaws, neck, abdomen, back, and all the extremities, were involved, in the order named. There was distressing opisthotonos, the patient during paroxysms resting only on occiput and heels

when turned on his back; and deglutition was very difficult—liquids only could be swallowed. Fortunately the boy had lost one of his front teeth a short time before, so a rubber tube could be inserted in his mouth, and in this way he was nourished by means of boiled milk for thirty days.

I now gave chloral and potassium bromide, fifteen grains each, every four hours, which mixture was continued day and night for two weeks, though, fearing cumulative effect, I at times decreased the dose and gave at longer intervals, but only to return to the original quantity again, as the paroxysms became so much more violent; indeed, at the expiration of two weeks I was obliged to give thirty grains of each ingredient every four hours, and sometimes oftener. I several times endeavored to substitute morphine sulphate (one-fourth grain, hypodermically), but it did not answer—it failed to control the paroxysms satisfactorily, and also necessitated drawing of urine by catheter, which always excited violent convulsions.

There was only slight elevation of temperature until the twenty-second day, when it went to 104°; respiration very rapid and shallow; pulse 150; cyanosis very general, and the whole skin-surface bathed in cold perspiration; also delirium; inability to swallow. Stimulants were administered freely, by rectum. Constipation had existed from the beginning, and bowels only acted from enema. I gave six grains of calomel as soon as patient could swallow, which acted thoroughly in about four hours; also phenacetine, five grains every two hours, to control fever.

For three days and nights life hung by a thread, and death was hourly expected. Respiration was obstructed by tympanites, which, in connection with muscular contraction, rendered the abdominal wall almost as hard as a board. Bladder and bowels acted involuntarily.

Not until the twenty-fifth day was there improvement in the case; then the symptoms all gradually subsided, though it was seven weeks before the boy wholly recovered.

The large number of drugs recommended in the treatment of tetanus, and the high rate of mortality, show how unsatisfactory are the attempts to combat this most formidable disease. Owing to excessive exhaustion, a highly nutritious diet, with free administration of alcoholic stimulants, is, I believe, called for, and if it is impossible to feed by stomach, resort must be had to rectal injections. Absolute quiet should be enjoined. The appli-

cation to wound of a strong solution of bichloride of mercury should be constantly employed, and such surgical measures as may be indicated.

The drugs demanded are those that tend to quiet the intellectual centres of the brain and depress both sensory and motor sides of the spinal cord. Eserine sulphate is employed by Doctor Lee, of Galveston, and by others, with apparently satisfactory results, but it proved of no utility in the case just cited; furthermore, there is one serious objection to its use, in that it tends to induce intense nausea and vomiting in at least fifty per cent. of the cases where used. The weight of authority certainly is largely in favor of chloral and potassium bromide; and Doctor Ranney, in his work on "Nervous Diseases," insists that "large doses of chloral, combined with large doses of potassium bromide, give as much relief as any known treatment, and constitute really the best remedy we have; the chloral should be given in twenty-grain doses, combined with sixty grains of bromide of potassium." J. Lewis Smith, too, corroborates with the assertion that in his opinion chloral is "far preferable to all others;" and M. Nicaise, of Paris, author of "Injuries of Nerves," in the International Encyclopædia of Surgery, adds: "It is necessary to put the patient in the most favorable surroundings, and at once to administer chloral until resolution of spasm is obtained." I might quote like evidence from other authorities; and accepting the conclusions drawn, in connection with my own observations in three cases, I conclude chloral is by long odds the most valuable agent available in the treatment of tetanus, and is best administered in connection with bromide, as one lessens the reflex irritability of the motor, and the other of the sensory, side of the spinal cord; and it should be given until decided chloral sleep is induced, which is to be kept up until the disease spontaneously disappears.—It is perhaps needless to remark there is no specific for tetanus. Given in this way, the chloral and bromide render the patient oblivious to the various sources of irritation which surround him, as well as lessen the force and frequency of the spasms.

While the journals have recently reported some cases of tetanus treated with toxin, the

literature upon the subject is too meagre to draw any conclusions therefrom. Doctor Nicholas Senn, in reply to a letter of inquiry, declares, under date of March 5th, that he knows of no cases treated with toxin; and Doctor Warren Coleman, of New York, writes me that though he is under the impression that several spasmodic attempts have been made with serum therapy in tetanus, he knows of no systematic work.

Colorado, Texas.

THE THERAPEUTICS OF EXERCISE.

BY A. G. CLOPTON, M.D.

No one appreciates the great good to humanity resulting from the achievements of the nineteenth century more than I do,—but its benefits are so general, so full, and have come so silently, that we must analyze to appreciate them. The question may be asked: Are these grand achievements of which we boast an unmixed good; have they not been made at much sacrifice which might have been avoided? Is physical culture worthless, that it should be neglected as now? Can we boast of a superiority over the people of the former century in everything? Are we their equals in those attributes which go to make the perfect man, and upon which health and happiness, individually and collectively, depend? We live in a luxury of which our forefathers never dreamed: But do we sleep as soundly? Do our bodies thrill with the glow of health as did theirs? Are we as quick of eye, as firm of tread, as ready of judgment? While cultivating the intellectual forces are we not planting the seeds of decay?

Our ancestors, in the primitive days, had large, expanding lungs, full chests, strong and hard muscles, exhaustless strength, and knew but little of the aches and pains and ills which are now so general that we accept them as natural to human life. The higher type of savage was perfect in form, lithe in movement, keen of vision, and strong of arm; he knew nothing of the higher culture; he was an animal, it is true, but a noble one. Now I would ask: In the pursuit of science and wealth and luxury, are we not neglecting our bodies; and is this necessary? Mar

an animal—an intellectual animal, it is true, but the full development of his body is necessary not only to his health, but to his complete mental development. Why the increasing number of the insane, filling our asylums, private and public? Why so many sudden deaths from so-called heart trouble? Why the prevalence so general, as compared with the first half of the present century, of Bright's disease? And, above all, why the increasing statistics of death from consumption? I believe all these are due mainly to neglect of physical culture.

Progress is so rapid, the daily business of life so exacting, competition so great, that we have no time to attend to our bodies. Given two men of the same mental gifts and general attributes—that is to say, assiduity, perseverance, ambition, love for one's life-work—the one strong and healthy, the other feeble and weak; the one sleeping and eating well, the other doing both badly and failing to assimilate his food; the one a stranger to aches and pains, the other tormented with neuralgia and constipation; and both engaged in the same mental work. Now if both die at the same age, the work of the former will outstrip in scope and value that of the latter.

Everything intertwines and interlaces every other thing, and everything, to a certain extent, depends upon every other thing. This law applies more especially to the development of the human being, who, to be complete, must develop along all the lines. Montaigne has well observed, in speaking of man:

I would have the disposition of his limbs formed at the same time with his mind. It is not a soul, it is not a body, we are training, but a man, and we must not divide him.

Physical culture includes exercise. Food and air being sufficient, there is no other way of developing any part of our organism. Exercise means youth, functional vigor, and a high standard of organic life. Muscle will only grow and develop by being exercised; if not used, it wastes and atrophies,—it is by the exercise of the skeletal muscles that we can, under the will indirectly, exercise the muscles of the heart and of respiration, of the arteries, and of all movable parts related

especially to the nutrition of the body. The body consists of individual cells, and so long as the vitality of these is maintained at normal standard there can be no disease. I am one of those who believe it possible to resist all diseases, in a measure, by close observance of the laws of hygiene. Preventive medicine is forcing itself upon the attention of the physician and the people, and one cannot prophesy the miracles it will perform; but the purpose of this paper is to discuss only one feature of hygiene.

The bodies are neglected, to cultivate the brain, and the result is that cell-activity is lowered and the economy is the prey of every disease that comes along, infectious or otherwise; a current of air often prostrates with catarrh or pneumonia or, perhaps, consumption. There is no power of resistance, therefore no immunity. Herbert Spencer years ago said that "the enlightened people of this age take an interest in the raising of the offspring of all creatures except themselves."

The law of reaction obtains to everything, and it is probable that this law will produce a change in the life of future generations; already evidence of this is seen. Physical culture, more especially exercise of the skeletal muscles, now engages the attention of educated men and women, and no doubt will in time bring forth good fruit. I quote from another the declaration that it was not until 1875 that the English Channel was crossed by a swimmer; not until 1877 that a man had ever leaped, without artificial aid, to the height of six feet two inches from the ground; further, there are men who can now jump across a gap twenty-three feet in width; a mile has been run in a few minutes. I do not cite these facts as evidence that scientific exercise must result in accomplishing such feats, to be complete, but to show that interest is awakened in the question of exercise, and that it is receiving an attention not heretofore given it. These extraordinary feats have done this much good: they cause thinking people to realize what may be accomplished in developing the human body by systematic training.

The purpose of exercise is not to make giants of pigmies, or to make a Samson of a Tom Thumb. There are factors, hereditary and otherwise, that limit the effects of exer-

cise. Exercise, rationally applied, develops the body along all lines into symmetrical proportions. Physical culture is most effective if begun in early childhood. This is the time in human life when the human being is not responsible, but the parents and family physician are. It is then that the body is the most impressible, as well as the mind; it is then that the bent twig may be straightened. The results in the development of the body by systematic exercise begun in childhood with stunted children of stunted parents, as given us through statistics, are wonderful.

By reference to Mr. Charles Roberts's *Manual of Anthropometry*, we learn that:

Growth is most rapid during the first five years of life:

From birth to the age of five years, growth is the same in both sexes:

From five to ten years, boys grow more rapidly than girls:

From ten to fifteen years, girls grow more rapidly than boys, and from eleven to fourteen are actually taller, and from twelve to fifteen are actually heavier, than boys:

From fifteen to twenty years, boys again take the lead and grow at first rapidly, then gradually slower, and complete their growth at about twenty-three years of age.

After fifteen, girls grow very slowly, and attain their full stature at twenty years of age.

The statistics show a very slow but steady increase of stature up to fifty years, and a rapid increase in weight up to sixty years. Some children appear to grow by fits and starts. Children remaining several years below the medium height may suddenly shoot up and attain more than the normal stature when they reach adult age.

These statistics are valuable as a guide as to the best time in the life of the individual to apply systematic exercise, and further teach that the time for the most satisfactory results differs in the two sexes. It is during the period of the most rapid growth in stature that most can be done in correcting the deformities of childhood, whether hereditary or acquired. If systematic exercise of definite parts is postponed until adult life, the results are not so marked, though much may be done.

The scientific regulation of exercise, especially during youth, does more than to increase the size and height of the body; body symmetry generally is the result, giving grace

and liveness to the movements. Muscular co-ordination is made more perfect. Of all animals the human being is most subject to variations in proportions and symmetry. Today if one were to take the measurements of all the individuals in any one assembly, I doubt whether one would be found of perfect symmetry—that is, with the two corresponding halves exactly agreeing. This want of symmetry (not amounting to a deformity) a systematic course of training, especially during the period of growth, would correct. The long, lanky, graceless lad, whose height has outrun his muscle, may be made to become a well proportioned, graceful man. He needs the systematic exercise of every muscle daily; therefore his trainer, whether physician or parent, must understand how this is to be done. The short, stumpy lad, with big head and chest, with legs out of proportion to his trunk, ungainly and unsightly, may be developed into a well proportioned man—yes, may be made to represent the highest type of physical manhood. Here the legs need exercise more than the muscles of the trunk, and for such cases bicycle exercise should be prescribed early in life.

The power of exercise, rightly applied, to develop deficient parts without increased development of normal parts, is remarkable. McLaren cites the case of a lad, nineteen years of age, whose height was not increased by exercise, but who increased the girth of his chest four and a half inches in nine months. A more remarkable case is reported by the same author, which not only proves that special parts may be exclusively developed, but that such development may be brought about long after the natural period of growth has passed.—A man thirty-five years of age, at the end of two months' exercise at the Oxford Gymnasium, had increased the circumference of his chest no less than four and a half inches.

Exercise of the skeletal muscles tends to expand the lungs and sends to the organs and tissues fresh arterial blood more frequently; body metabolism is increased and cell activity strengthened; the heart-beat is increased within normal limits, and the system is cleared of waste matters; the sewers of the body act more efficiently. Lagrange, in his work on *Body Exercise*, observes:

Heat causes in muscle-fibres the first stage of contraction, or at least an aptitude for coming into action under the will more quickly. The maximum aptitude for contraction in human muscle is at about 40° C. It is then that a man's muscle can act more quickly and he can make use of all his force.

This author compares the preliminary sparing before a fight, the preliminary canter before a race, and the movements of an angry animal before an attack, to the heating up of a locomotive before it starts upon its run. Here we have a practical lesson. In exercising, or prescribing exercise, the greatest effort must not be made at the start. The muscle should be gradually warmed up to its work. A neglect of this precaution will result in the immediate fatigue of the muscle and an abandoning of the prescription. Again, we should understand that as the muscle becomes accustomed to work, its capacity for work increases, and it may be increased daily until it reaches its extreme limit before fatigue.

Skeletal muscle exercise is perhaps the only remedy for obesity. When a man suffering from obesity applies to the physician, he is put upon a special diet, all food being prohibited which it is thought will be transformed into fat during the process of assimilation; this does no good, but will surely do harm. Such prescription, prohibiting nourishing food, if it does anything, deprives the cells of their needed nourishment, weakening their vitality without reducing the obesity. Muscular exercise is the remedy in these cases, and it should be directed and enforced by the physician. These people abhor exercise, and must be driven to it with the lash.

Fat is a reserve tissue fuel for the body-combustion. It is easily disassimilated, and, as it is uncombined with the tissues structurally (only deposited), its removal within limits does no harm. As the obese man loses fat under this regular and systematic exercise, his muscles become firmer and harder and larger, and contract more easily under the will; he soon becomes hardened, is not easily fatigued; his chest expands more, the heart-beat is less sluggish, and the intellect brighter. To quote Lagrange again:

Exercise produces in the system two absolutely different effects: it increases the power of assimilation, by which the body gains new tissue, and accelerates the process of disassimilation, by which certain materials in excess are destroyed.

Exercise is necessary to thin people who assimilate too little, and fat people who do not disassimilate enough. Again, general exercise promotes regular evacuations of the bowels, and how important this is to health I need not explain.

The longer I live and investigate matters relating to medicine, the less confidence I have in the *materia medica*, and the more in preventive therapeutics. Expand the lungs by exercise in the open air, draw in draughts of fresh air, make the blood course more rapidly through the tissues, clear out the waste matters as soon as formed, drink a plenty of pure water without whiskey, bathe regularly, and you may defy disease.

But it must be remembered there can be too much of a good thing. Exercise ought to be willingly performed and should stop short of muscle fatigue, and must be kept up, in a measure, through life. Exercise last year gives no immunity this year, only in so far as it has developed the organism. When muscle is fatigued it responds to the will with difficulty, and exercise then is of no benefit.

If exercise has the effects I claim, it must have a good effect upon the mind and morals of man: It improves, of course, the circulation of the blood in the brain, and aids all cerebral acts; it stimulates thought. A proper distribution of mental and physical work is the great desideratum. When we do this, our system of living is as perfect as we can make it.

Prescribe fencing, gymnastics with apparatus, lessons in riding-school, to all those idle persons whose brains are languishing for want of work. The effort of will and the work of co-ordination which these exercises demand will give salutary stimulus to the torpid brain-cell.

But for a child overworked at school, for a person whose nerve-centres are congested by persistent and close mental application, prescribe long walks, the easily learned exercises of running; and failing of better, the old game of leap-frog, prisoner's base, running games—anything rather than difficult exercises or acrobatic gymnastics. (Lagrange.)

With such persons the mind must entirely relax while the body plays. The same prescription will not apply to all; that for the working man and that for the hard student must differ. Exercise in the various sports which are now becoming popular will give individual character. It is a good way to

cultivate in the boy the qualities which adorn the man, as it gives pluck, courage, endurance; it teaches him to be quick of hand and eye and prompt of judgment. It is a good school for discipline, self-control, self-reliance. The games which are becoming popular in our schools and colleges will in time extend among the people as national games, and, if kept within bounds and regulated, will make the future citizens of this republic brainy and muscular, independent and self-reliant, lovers of freedom and ready to battle for it.

A word as to the dangers of too much exercise, of excessive exertions and straining. These I can only enumerate:

First—Breathlessness.—In the beginning of exercise it is very easy to pump one's self out of wind. Avoid this by beginning mildly and gradually.

Second—Muscular fatigue.—If you apply an electric current to an exercised muscle, it will contract; but if you apply it too long or too strong, the muscle quickly refuses to respond to the strongest stimulus; it must recover its contractility. The same condition may be produced in the living body by too long or too active contractions of muscle under exercise. Too active exercise, even when muscle fatigue is not produced, will be followed by stiffness, at least until muscles have been hardened and taught endurance.

Third—General fatigue.—Overwork is followed by a depression which is often followed by general disturbance and fever, the "fever of over-exertion" continuing for days, due, no doubt, to the throwing into the system of waste matter more than can be eliminated, which thus acts as a poison.

The effects of excessive exercise may be any of the following: Heart-rupture; hypertrophy of heart, dilatation of its cavities, or valvular disease; rupture of blood-vessels; aneurysm; varicose veins; hernia; hæmoptysis; rupture of muscles; fracture of bones.

Thus no prescription requires more judgment and accurate knowledge on the part of the prescriber than exercise of the skeletal muscles. The physician who has no general knowledge of anatomy and physiology is incapable of prescribing the manner and amount of exercise. He must know the relation of each muscle and group of muscles

to the bones, and the relation of special organs to special parts, and the functional dependence of each upon each, and, above all, the relations between voluntary muscular and cerebral action, before he is competent to give rational and scientific directions about body exercise. There is an organic pathology and a psychical pathology. Every case of paraplegia or hemiplegia is not due to organic lesion; perhaps oftener such a condition is caused by psychical lesions, so to speak—an abeyance of will power. We must know something about the latter pathology before we can assume to teach the dumb to speak or the lame to walk.

Galveston, Texas.

SOME SURGICAL CASES.

BY J. B. HOLMES, M.D.

Case 1.—Mary N—, aged thirteen months, was brought to me April 6th, 1894, with good family history, and no evidence of tuberculosis, cancer, or syphilis. She was rather small for her age, but in good health up to early in January, three months before, when she became irritable and suffered considerable digestive disturbance, accompanied with loose bowels. Her mother at this time detected a small tumor, about the size of a hen's egg, in the right lumbar region, which the family attendant deemed enlargement of the liver, for which she was treated up to the latter part of March. After a thorough examination, I decided it was a case of sarcoma of the kidney. Preparatory to operation, a dose of oil was given, with instructions that no nourishment be allowed except mother's milk, and nothing on the following morning.

On this date, April 12th, after an all-over bichloride bath, and thorough cleansing of abdomen, I made an incision, beginning near the lower border of the eighth rib and extending down on the outer side of the linea semilunaris to near Poupart's ligament.—The tumor was quite large, and I had hoped by pushing the peritoneum far over to the left to do an extra-peritoneal operation, but in making my incision and reaching the capsule I found the latter so firmly adherent to the peritoneum as to be impossible of separation without great and serious damage, and perhaps lacerating this membrane. Again, on account of the immense size of the growth, I was unable to enucleate it without going into the abdominal cavity, but was forced to make a transverse incision, extending from

about the middle of the longitudinal one, three inches in each direction. After considerable difficulty the capsule was detached from the peritoneum and the tumor turned out. I intended to have tied the artery and vein together, and the ureter separately, but, as considerable time had been consumed in breaking up the adhesions, I ligated all together. The peritoneum was now closed, without flushing, by a running suture of fine silk; a drainage-tube (to be removed after forty-eight hours) was placed in the lower angle of the wound, and the latter thoroughly cleansed with sterilized water, before closing. The incision was closed with deep sutures of silkworm-gut, which, however, did not include the peritoneum.

The patient was put to bed in good condition, having lost not more than an ounce of blood. At the end of twelve hours her temperature had reached 100° . The following day, twenty-eight hours after operation, temperature had reached 102.5° , and there was considerable distention of the abdomen, but no gastric disturbance had shown itself. I gave one grain each of calomel and soda, which acted freely in three hours, when she passed six immense lumbricoid worms. The succeeding day her temperature was normal, and so continued until the fourth day, when there was a slight elevation, reaching 100° . I examined the dressings and found some redness at one stitch, which had been drawn too tight. This was removed and a little pus escaped, when her temperature dropped in six hours to normal and so continued. On the sixth day every alternate stitch was removed; the remainder the day after. With the exception of the one stitch-hole abscess, the incision healed without suppuration. No opium was given, and she took no nourishment except mother's milk. After the first twenty-four hours she had water *ad libitum*. The tumor, with the kidney, weighed thirty-six ounces. The kidney rested almost as a flattened shell upon the surface of the tumor. The patient returned home in three weeks, and continued in excellent health until March, 1895, when she died of acute pneumonia.

Case 2.—D—, aged 56, came to me October 20th, with a swelling in right iliac region as large as a foetal head; he was intensely weak; pulse 130; temperature 102° . He stated that two weeks before he had been seized with a severe pain about three inches to the right and a little below the umbilicus, accompanied with high fever, constipation, and vomiting; and was treated for liver disease until he became alarmed. I diagnosed perforated appendicitis, with suppuration,

and his condition was so extreme that I operated within an hour after he came.

An incision was made from McBurney's point, extending two inches downward, and just as the knife entered the abscess-sac he coughed, and the pus spurted at least three feet high; about a quart, of an extremely foetid character, was discharged. The cavity was thoroughly irrigated, and packed with iodoform gauze. I did not search for the appendix, which I am sure had been entirely destroyed by suppurative process. He left November 19th, with the wound entirely healed, and in excellent condition. His health has continued good, as a letter of his dated April 11th states.

This case illustrates how wisely and well Nature takes care of her subjects. This old gentleman had traveled more than three hundred miles with only a thin membrane between him and eternity; for had this ruptured, and the contents of the pus-sac gone into the peritoneal cavity, septic peritonitis would have quickly ended his life.

Case 3.—Mrs. C—, aged 21, nullipara, began to menstruate at fifteen. Up to marriage she had been in excellent health, and weighed 143 pounds, but soon after suffered an attack of pelvic peritonitis, and from that time her health had steadily given way; when I saw her she only weighed 90 pounds. She complained of insomnia, loss of appetite, poor digestion, constipation, frequent and painful micturition, backache, intense pain in the pelvis (most severe on the left side), and constant bearing-down sensation while standing or walking. The uterus was firmly fixed; left ovary and tube the same, very much enlarged, and extremely sensitive and tender; the right ovary also was fixed and enlarged, but not to the same extent.

Ovariectomy was performed October 20th, and upon opening the abdomen I found the ovaries and tubes adherent to everything within their reach. After much difficulty the adhesions were broken up, ovaries and tubes removed, abdomen thoroughly irrigated with boiled water of 105° , and glass drainage-tube inserted and left for forty-two hours. Her recovery was uninterrupted. She is to-day free from pain, with good appetite, perfect digestion, sleeps well, and weighs 125 pounds. The left ovary and tube were both filled with pus, the right ovary cystic, and the right tube filled with blood.

The cause of the trouble in this case was, probably, gonorrhœa. I report the case as a

typical one, to show the terrible ravages this malady can commit in a short time; she had been married but two years. I could report a number of such cases.

Case 4.—Mrs. H——, aged 32, multipara, was a confirmed opium *habitué*. Menstruation profuse and intensely painful; severe headache; insomnia; acute pain in back and bearing-down sensation in pelvis; unable to stand or walk—had not walked a step in nine months. I found the right ovary prolapsed and fixed in Douglas' cul-de-sac, and I think it was the most sensitive of any I ever touched; left ovary prolapsed and cystic, about the size of a hen's egg; uterus retroflexed and considerably enlarged.

November 22d I removed both ovaries and tubes, elevating the uterus by shortening the round ligaments, which were included in the ligatures encircling the ovarian pedicle. She returned home December 24th, free from pain and walking without discomfort. She is now, as a recent letter states, attending to her household duties, in perfect health, and free from the opium habit.

Case 5.—Mrs. D——, aged 36, had been an invalid for fifteen years. Menstruation regular, but with great pain; violent headache; insomnia; no appetite, and poor digestion; constipated; nausea; intense pain in back and lower abdomen, extending down thighs; confined to bed for six months. I found floating kidney on the right side; uterus enlarged and retroflexed; right ovary the size of a guinea's egg, firmly fixed in Douglas' sac; left ovary prolapsed, cystic, sensitive.

Ovariectomy was performed December 18th; both ovaries and tubes removed and uterus elevated. Her convalescence from the operation was satisfactory in every particular.

On February 5th the right kidney was anchored. I made an incision about two and one-half inches from the spine, beginning at the lower border of the twelfth rib, and extending three and a half inches in an oblique direction toward the crest of the ilium. When the kidney was exposed the capsule was incised and folded back one-fourth inch on each side. Four silkworm-gut sutures were passed through the muscles, the fatty capsules of the kidney, and the kidney tissue. Twelve strands of silkworm-gut were placed on the kidney and brought out at the upper and lower angles of the wound. The organ was then pressed firmly into position, and three additional sutures of silkworm-gut passed from the skin through the muscles, fatty capsule, and kidney tissue. The four deep sutures were drawn moderately tight

and tied, cut close, and the cutaneous wound closed by the three deep sutures and several superficial ones. A dressing of sterilized gauze and absorbent cotton was applied over the wound, and a pad of gauze was applied on the abdomen, over the anterior aspect of the kidney, and held in position by rubber straps passing half round the body.

On the eighth day the silkworm-gut threads were removed, and also the sutures. Perfect union had taken place throughout the entire length of the wound. The abdominal pad was worn for about thirty days.

The kidney still remains firmly fixed; she has gained wonderfully in strength and flesh, is relieved of all pain, eats and sleeps well, and walks wherever she pleases.

This patient had been a victim for ten years of iodine, iodized phenol, carbolic acid, nitrate of silver, *et al.*

Case 6.—Mrs. H——, aged 33, began menstruating at sixteen; the periods were always painful and very profuse. She complained of severe headache; no appetite; poor digestion; constipation; painful urination and a feeling of constant pressure on the bladder; was extremely nervous and excitable; great mental disturbance. Had suffered for three years with intense pain in abdomen, much greater in the region of the ovaries, and had been treated locally for three years. I found the uterus enlarged and fixed; right ovary as large as a goose-egg, tube very much enlarged, and both firmly fixed; left ovary and tube also fixed, the tube considerably thickened and ovary cystic.

Ovaries and tubes were removed December 21st. Adhesions being dense and strong, the appendages were removed with the greatest difficulty. The right ovary was ruptured and a large quantity of dark-colored fluid discharged. The right tube, upon examination, was found filled with blood, the left ovary and tube filled with serum; both tubes entirely occluded. Ovaries and tubes were studied with papillomatous growths.

Union of the abdominal incision in this case was interrupted by several stitch-hole abscesses—produced, no doubt, by the stitches being too tightly tied. She left for home January 23d, since which time she has continued to improve, and is now in full control of the care and management of a large hotel.

Case 7.—Mrs. M——, aged 28, complained of intense headache, variable appetite, poor digestion, constipated bowels, severe backache, pain in lower part of abdomen but much more severe on right side. No trouble with bladder; menstruation regular but in-

tensely painful; had been bed-ridden for five years; very weak and anæmic. The right ovary was extremely sensitive and about the size of a guinea's egg; left ovary and tube prolapsed and firmly fixed by inflammatory adhesions. There had been several well defined attacks of pelvic peritonitis.

Both ovaries and tubes were removed January 5th. The adhesions were particularly dense and strong, especially on the left side. Both ovaries were filled with a cheesy mass, evidently tubercular in character,—indeed, she had a tubercular history. Both tubes contained a small quantity of the same material.

On March 2d she was strong enough to walk, and was eating and sleeping well; and her subsequent improvement has been continuous and satisfactory.

Case 8.—Mrs. S——, aged 35, on the afternoon of February 11th, while walking across the room, was suddenly seized with an intense pain in the left iliac region, which was so severe she had to be lifted to bed in a swooning condition. She continued to suffer during the night, and, notwithstanding the free administration of stimulants, grew weaker until her condition became alarming. On the following day there was no improvement, except that the suffering was not so acute; pulse rapid, expression anxious, and some distention of the abdomen. The third day there was still more prostration, with considerable distention of the abdomen, and tenderness; pulse extremely weak and rapid; a well defined peritonitis. I saw the patient February 14th, when she had a temperature of 102° , pulse 135, and was extremely pallid, with anxious expression of countenance; very great distention of abdomen; respiration hurried and embarrassed.

The following additional history was given me: Had been in good health and menstruated regularly, the last regular period occurring eleven weeks before; thirty days subsequently the flow came on rather scant and lasted only a day or two. At the regular time it again returned, but was not so free, and lasted only one day. She had suffered some with "morning sickness," but not enough to lead to the conclusion that she was pregnant.

On passing a finger into the vagina, I detected a large, boggy mass, filling up the left side of the pelvis, the uterus considerably enlarged and pushed far over to the right. I diagnosed tubal pregnancy, with rupture, and urged immediate operation. Strychnine had been given hypodermatically from the time I saw her, and every preparation was made for

operation in the early morning, the bowels meantime having been thoroughly evacuated by copious enemata.

In anything but a promising condition, four days after the rupture she was anæsthetized and the operation performed. The entire abdominal cavity was found filled with coagulated blood, which was removed along with the ruptured and bleeding tube.

I regret that I was not able to find the foetus; it doubtless had escaped into the abdomen, and there been macerated.

The patient was put to bed in almost a moribund condition, strychnine and whiskey freely used, and a hot saline solution thrown into the bowels. I would have used saline infusion into the veins, but had no appropriate instrument with me. She rallied in a few hours, and her recovery was satisfactory in every particular. I recently had the pleasure of dining with her, and found her entirely well, but still weak and anæmic.

Case 9.—Miss H——, aged 20, could not tell when she began to menstruate, but thought the flow had always come on regularly and with pain. About a year ago she noticed some swelling in lower part of abdomen; this had increased considerably during the last six months and given great pain, so much so as to require anodynes. Within three months the abdomen had become so large as to be quite noticeable. She was sent to me for operation for a supposed ovarian cyst, and from an examination of the abdomen alone a diagnosis of that kind could easily have been made; the fluctuation, however, was quite indistinct, if felt at all. I found the fluctuating point at the base of the bladder, about two inches below the meatus, and the finger passed high into the vagina could just touch the cervix.

March 9th, a free incision was made at the point of fluctuation, when was discharged quite three quarts or more of dark grumous material, evidently retained menstrual blood. After the cavity was thoroughly emptied I caught the cervix with vulsellum forceps, drew it down, and passed the sound in it, at the same time passing the index finger of my left hand through the incision into the cavity just emptied. I could distinctly feel the point of the sound, with a membrane intervening between it and my finger. I withdrew the sound, passed the uterine dilator through the cervix, and perforated the septum. I then passed two rubber drainage-tubes through the cervix and through the opening in the septum and out at the point of the incision in the sac. The sac was thoroughly irrigated with boiled water at a temperature of 105° ,

and well packed with iodoform gauze. The gauze was removed once a day, each time irrigating the cavity and repacking. The drainage-tubes were removed on the third day. The irrigation and packing of the cavity was kept up for seven or eight days. The cervical canal was kept well dilated, allowing the drainage to pass off through it. She was relieved, and the incision had entirely healed when she returned home March 30th.

This was to me a very interesting case, clearly one of uterus bicornis, with one cervical canal, and a septum dividing the two cornu. Undoubtedly the hæmatometra had existed since she first began to menstruate.

Case 10.—Mrs. K—, aged 27, complained of anorexia, bad digestion, severe headaches; bearing-down pain in abdomen, worse on right side and greatly increased since her marriage seven years ago; very nervous; could not walk or stand without great suffering. Began to menstruate at sixteen; always suffered intense pain during the periods, which usually persisted for about three days. I found right ovary and tube firmly fixed in Douglas' cul-de-sac, the former considerably enlarged and extremely tender; left ovary also quite tender, somewhat enlarged, but in normal position.

Ovaries and tubes were removed March 12th. Patient was put to bed rather weak, and strychnine, one-thirtieth grain, given hypodermatically at three-hour intervals until the end of the twelfth hour. She suffered intensely for the first few hours—so much so as to require two hypodermatics of morphine, one-fourth grain each, one ten and the other fourteen hours after operation, which afforded full relief; during the next twenty-four hours her condition was good in every particular.

On the morning of the third day she vomited quite freely. A high enema of soap and water was given, which came away without bringing any fecal matter or gas. Then was given one-half grain of calomel every half-hour until twelve doses had been taken, and strychnine in one-thirtieth-grain doses every three hours, still without passage of any kind, and there was no peristalsis. I now began to suspect intestinal obstruction, either from lymph bands, twisted bowels, or union to the ovarian stump. The vomiting continued to grow worse, and at noon, fifty hours after the operation, she was given ten grains of calomel, which was repeated in three hours, but, as she vomited freely, I dare say little, if any, was retained. She was then given Seidlitz powders, which she also failed to retain. During the afternoon and night of the third

day she had a number of enemata of soap and water, turpentine, ox-gall, etc. I was now thoroughly convinced of intestinal obstruction, and her pulse began to show evidences of failure; the interval between the doses of strychnine was reduced to two hours.

On the fourth day after the operation there was some improvement in the circulation; she was resting some, sleeping a little, and not vomiting so frequently; still there was no peristalsis. By noon the pulse had increased in frequency and lessened in volume, and I decided that we had waited as long as it was prudent and safe. At 4 P.M. the abdomen was reopened. Perfect union had taken place in every part of the wound. The ileum at about its middle was firmly attached to the ovarian stump, on the right side. It had looped around about eight inches and attached itself again, producing a complete obstruction of lymph bands around the bowel. The adhesions were loosened, the lymph bands divided, and every portion of the intestinal tract thoroughly examined. The abdomen was freely irrigated with boiled water at a temperature of 105°, and a glass drainage-tube inserted and left for twenty-four hours. The patient was put to bed in a very weak, prostrated condition, having a small pulse of 137. By the free use of strychnine and whiskey hypodermatically, hot applications to the body, and whiskey and salt-water in the rectum, she gradually rallied; and from that time convalescence was uninterrupted. Today she is practically well, "feeling better than for several years."

Ether was administered to all the foregoing cases, except Nos. 1 and 4, to whom chloroform was given. Chloroform was also given in the second operation in Case 10. I believe that if the secondary effect of ether upon the kidneys were closely studied, we would find as many or more deaths attributable to it than to chloroform, both primarily and secondarily. The risk of ether is undoubtedly greater secondarily than primarily, and many deaths are caused by it that are attributed to other causes. When carefully used and properly administered, I believe chloroform to be quite as safe, and it is certainly much more satisfactory. The struggling of the patient when being anesthetized is done away with, and the horrible sick stomach which usually succeeds ether rarely occurs with chloroform—the return to consciousness after taking chloroform is rarely accompanied with vomiting or severe nervous manifesta-

tions. I am daily more inclined to the use of chloroform, and expect in the near future to see the tide of professional opinion turn in its favor. Before administering it, if the patient is at all weak, I always give hypodermatically one-thirtieth to one-twentieth grain of strychnine. There is still great diversity of opinion among surgeons as to the relative safety of the two anæsthetics in the presence of kidney disease, and some even claim that chloroform produces more renal trouble than ether. I shall always, until experience proves to the contrary, give chloroform the preference in any diseased condition of the kidneys, unless there are potent reasons why ether should be used. I never operate in any case where albumen appears in the urine in any quantity, without a thorough test for urea and a microscopical examination for casts, unless it be a case of great emergency. If the quantity of urine is near normal, and the quantity of urea not notably deficient, hurried operations may be done, even if there are both albumen and casts. If, however, the quantity of urine passed is small and the amount of urea notably deficient, I would only operate for pus-accumulations or very large tumors producing severe pressure symptoms. Where diagnosis can be satisfactorily made of chronic interstitial nephritis—which is a very difficult thing to do,—all operative procedures are contra-indicated.

I find strychnine the most reliable of all heart tonics in surgical work. Where the patient comes under care early enough, unless very strong, I always give one-thirtieth grain every four to six hours for three or four days before the operation, and if there is evidence of shock afterwards I give freely, watching for its physiological effects and continuing it for several days or until the pulse is sufficiently strong. I consider it far better as a stimulant and heart tonic than alcoholic stimulants—which, however, I also use as required. For surgical shock I have very little faith in digitalis, since it has always disappointed me. Case 8 impressed me with the necessity of always going prepared to use saline infusions, which have, I think, a most important place in the treatment of shock from loss of blood.

My experience with catgut, both for liga-

tures and sutures, has been unsatisfactory, and I have abandoned it entirely except in trachelorrhaphy and perineorrhaphy,—it is hard to sterilize, soft, slips easily and is consequently hard to tie with any assurance of safety, and, besides, is frequently absorbed earlier than it should be.

I have never used many of the prepared foods, different broths, lime-water and milk, peptonized milk, etc., after abdominal operations, but if I were restricted to one article of diet for these cases I would select butter-milk. I find that many patients who in health could not use it at all, after a laparotomy take it with the greatest relish, and it is extremely rare that I find one with whom it disagrees.

As a purgative after an abdominal operation, I am more in the habit of using epsom salts than any other remedy; experience has proved it the most satisfactory, and I give it in three-drachm doses, repeating every three hours until the bowels move.

Opium is always to be deprecated in abdominal work, and I use it, with great care and caution; increased experience teaches me that those cases in which it is not given do best, and their convalescence is more satisfactory in every respect. While the pain after abdominal section is frequently severe, it rarely continues long; but when it is very intense and threatens to exhaust the patient, it is necessary to use opium in moderation. I think many of the cases of bowel-obstruction, whether due to paresis, lymph bands, or adhesions, are traceable to the use of opium. I am convinced that the adhesions in Case 8, where the abdomen was reopened, were due to the paralyzed or quiescent condition of the bowels, induced by the doses of morphine given. While all peristalsis was arrested and the bowel lying quietly against the ovarian pedicle, the lymph was rapidly pouring out and the constriction was produced; had the peristalsis kept up, no adhesions would have occurred. Just here let me enter a plea for the early reopening of the abdomen in all cases of diagnosed or strongly suspected post-operative obstruction. Do not let the patient die without a chance for life; reopen the abdomen; find the obstruction and relieve it.

In laparotomy cases where it has been necessary to elevate the uterus for retroflexion

or retroversion, I have done so by shortening the round ligaments, including them in the ligatures that encircle the ovarian pedicle. In the few cases in which this has been done, the uterus has remained well forward, while still permitted free movement. It is not fixed against the bladder, causing irritability of that organ, as ventro-fixation sometimes does.

In performing ovariectomy, I in no case operate simply for nervous and reflex symptoms, but only for a diseased condition that I am sure can be relieved only by surgical procedure. Careful examinations, post-operative, have confirmed my opinion in every instance.

While I believe in conservative measures, the most radical are often the most conservative. I am ready to admit that the abdominal cavity has often been ruthlessly invaded and organs removed for nervous symptoms due entirely to other causes and for which the pelvic viscera were in no wise responsible. On the other hand, tinkering gynecology, I am sure, is responsible for many diseased tubes and ovaries that can only be cured by removal. The introduction of various caustic remedies into the uterus may, I believe, cause destruction and sloughing of the mucous membrane, when a previously constricted cervical canal tends to prevent the exit of decomposing matter, and a septic endometritis naturally follows—soon extended to the tubes and ovaries, producing trouble that nothing but the knife will relieve; and if the latter is not invoked, the patient is frequently doomed to permanent invalidism, a condition sometimes worse than death. Many of the cases that the surgeon is censured for using the knife upon are caused by such treatment.

I do not condemn all local treatment. Properly directed, I believe there are many conditions where it is not only admissible, but demanded—especially when supplemented by constitutional measures, for often local troubles are the result of constitutional vices. I do condemn, however, in the strongest terms, the reckless haphazard and indiscriminate introduction of caustics into the uterus, without first providing for thorough drainage. The want of cleanliness on the part of many physicians when making vaginal and uterine

examinations is often a potent factor in causing uterine and pelvic disease. The uterine sound is a valuable instrument in its place, but there are few instances where it is required; it has worked incalculable damage to the female sex, and is still too indiscriminately used. Stem pessaries also have made many victims for the surgeon's knife—more, perhaps, than any other instrument or appliance.

I do not think every diseased ovary should be removed; far from it. I decline operation in many cases where the patient is anxious for it. I try to be conscientious and operate only where the disease is so far advanced that it has rendered or is likely to render the woman an invalid, and is incurable by any other than surgical means.

Atlanta, Georgia.

Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

NUCLEIN IN MALIGNANT DISEASE.

Editor MEDICAL AGE:

Case 1.—The first of June, 1894, Mr. S—, aged 55, consulted me as to a small tumor on the right cheek, one and a half inches beneath the orbit; the growth was about three-eighths of an inch in diameter, presenting the appearance of epithelioma. I at once pronounced it malignant, and advised removal. The patient, however, sought the opinion of another physician, and was advised not to allow an operation, as it was "only a skin disease." Tincture of iodine, peroxide of hydrogen, and ointments were prescribed, yet within a few weeks the tumor rapidly increased in size, ulcerated, and became very painful. The growth was removed by the family physician in October, and was then one and a half inches in diameter. Return was rapid and ulceration destructive. A second operation was performed after an interval of a few months, but this, like the first, was not sufficiently radical; now the whole wound became involved and destructive growth rapid. Here the cancer quack got hold of the case, and salves, pastes and oils were tried, one and another, until the case became desperate. I saw Mr. S— the second time on June 22d, 1895, and then deemed the case hopeless; the cavity of the ulcer was three inches in diameter, had destroyed the infra-orbital arch and the zygo-

natic arch to its articulation with the temporal bone, and even entered the antrum and orbit, the dead and decaying bone and flesh producing a stench terrible to endure. The lymphatic glands of the neck and groin were swollen and tender; skin dry and harsh; patient very feeble, much reduced in flesh, having night sweats and hectic; the discharge was so profuse that dressings had to be changed many times during each day.

My attention having been called to the action of nuclein in epithelioma, by Professor Robinson, of New York, I decided to try it, employing as an external dressing only carbolized vaselin. June 22d, 1895, I began with ten minims, injecting into the arm, shoulders, and back. Increased gradually each day to twenty drops, when fever and nausea followed by diarrhœa set in, which, however, was remedied by two days' rest. Next I increased to thirty minims—diarrhœa, nausea, and fever following. Again two days' rest; then thirty to forty drops each day as long as treatment was continued.

There was a gain in flesh of one and a half pounds during the first ten days of treatment. Appetite increased, strength improved, sweating ceased, skin became softer and smooth, pain very much relieved, and sleep better; the swelling was much reduced, ulcer looking more healthy, with but little discharge and that not so offensive, and where the diseased tissue sloughed away the flesh looked healthy and clean; granulations sprang up in many parts of ulcer, and at inner angle of eye, uniting and closing in the ulcerated surface. Improvement continued for four weeks, as shown by smaller size of tumor, sloughing away of dead bone without further destruction, and closing up of ulcer to two and a half inches in diameter, when it required to be dressed but once a day. There was general arrest of diseased process except in antrum and nose. Swelling of glands disappeared at the end of four weeks, and now the improvement was so noticeable that friends on the streets pronounced a cure being made. Nervous complications developed; the knowledge of the progress of the disease, seemingly going on unchecked in the nose and antrum, disheartened Mr. S—, and he became despondent and hopeless, and finally decided to return home to die, which he did. He lived about two months longer, but never got into the extremely loathsome condition he presented when I first began treatment, and he suffered much less pain.

Had this case been treated with nuclein six months earlier, I believe it would have recovered.

Case 2.—Mrs. M—, aged 56, came to me

October 1st, 1895. She was a large and apparently well nourished woman, though very nervous, restless, and feeble. Little was learned of her family history. A distant relative had died of cancer, and one of lung disease. The right eye was pushed forward about one-fourth inch beyond normal, and slightly outward; sight almost destroyed, and but slight movement of the eyeball. At inner angle, deep down in orbit, could be felt a tumor, the size of a filbert, hard and fixed and resistant to touch. Between the eyeball and lower lid a soft tumor, one and a half inches by half an inch, adhered to the sclera up to the corneal junction, entirely covering the lower lid; it was irritable and bleeding. This disease was first observed about eighteen months previously. Severe pain in eye, over right temple, in nose and cheek, and over the eye, had been constant symptoms; there was severe pain also in upper teeth of right side. Pulse 100; temperature normal.

I deemed this a case of carcinoma. Nuclein was given by the mouth in ten-drop doses three times a day from October 8th to November 5th, then hypodermatically one week, and by mouth to December 1st. There was slight fever, restlessness and general constitutional disturbance during first month under treatment, but the tumor was rapidly reduced, pain relieved, and there was general improvement in health, that has continued to the present time. The supply of nuclein was exhausted December 1st, and none has been given since. Patient was put on arsenic at this date, and is now taking three to five drops of Fowler's solution thrice daily. Nuclein was ordered for subsequent treatment, but the supply was lost by freezing.

It is my opinion that if a cure is not made, much good will result from the administration of this medicament; and this opinion is coincided in by Doctor Woodyard, who saw the case with me and has constantly had it in charge.

I hope to further report on this case.

Very truly yours,

F. W. WHITLOCK.

Jonesboro, Tennessee.

FOR SMOKERS.

Hajak, of Vienna, declares smokers are less liable to diphtheria and other throat diseases than non-smokers, in the ratio of one to twenty-eight. The learned Schiff remarks smoking should always positively be forbidden in bacteriological laboratories, because it tends to hinder the development of the bacteria.

THE MEDICAL AGE.

A SEPT-MONTHLY REVIEW OF MEDICINE.

PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MARCH 25th, 1896.

Editorial.

FILTRATION AS A MEANS OF PURIFYING WATER-SUPPLY.

The supplying of cities with water each year becomes a matter of more and more moment; every twelvemonth also goes to show that in this particular sanitarians are very far from reaching the *Ultima Thule* of perfection, and also that the general public have very little interest in the matter.

In a former issue of the AGE we had occasion to refer to an epidemic of typhoid fever occurring in Windsor, Ontario, a city of less than ten thousand inhabitants. At the present moment every physician of this corporation is overworked, and there are upwards of one hundred cases of typhoid, many of them of very serious character; and the most reprehensible feature of the whole affair is that for several years the corporation has been warned regarding the quality of its water, and the city fathers have as constantly thwarted every measure looking toward improvement.

Other cities, both in Canada and the United States, have had reason to complain on the same score, and as a result certain portions of the country are being overrun by agents for filters, who, like all perambulating gentry of this class, take particular pains to delude the public into the belief that their wares place the purchaser permanently beyond the danger of infection through water-supply.

Recently, too, the matter of water-supply has been discussed with regard to the largest city in the Province of Ontario, viz., Toronto. Mr. Mansergh's report, to be found in the

Mail and Empire of March 4th, is a most complete epitome of information on the subject of water-supply and the engineering possibilities connected therewith; when it is published in pamphlet form, as it undoubtedly will be, it will constitute a guide-book of incalculable value for reference in connection with this form of sanitary measures.

The fact is, numerous schemes for water filtration on an extended scale have been brought forward from time to time for the relief of improper water-supply. For such methods everything is claimed, while the negative evidence is either unknown or studiously ignored. Some of the companies supplying the city of London (England) have spent enormous sums in attempting to perfect filtering plants which, after all, proved very imperfect, or at best capable of rendering valuable service only for a brief period of time. Numerous experiments undertaken from time to time at the Army Medical School, Netley, dealt with the filtration material used by certain water companies in England, which with slight variation consisted chiefly of an upper stratum of from eighteen to twenty-four inches of sand superimposed upon two or three feet of gravel of gradually increasing coarseness. All such filtering material, even though often renewed, proved highly unsatisfactory. To be sure sand that is not too fine (the sharp angular particles are best) acts to a certain degree mechanically—the suspended impurities, both mineral and inorganic, adhering to the angle and plane surfaces; but while the effect upon suspended materials is for a time satisfactory, upon organic matter it is very imperfect, less than five per cent. being removed. Furthermore as the sand becomes encrusted it very rapidly loses its effect, and soon ceases to act as a filter; on the contrary, it may in course of time tend to impregnate the water with material removed from preceding portions.

It has been found that ferruginous green sand arrests *all* organisms at first; but after a fortnight the amount is reduced to eight per cent., after thirty days to less than five per cent., and so on. Fine white sand well washed and heated to redness, has a moderate effect, but is much inferior to the ferruginous. Pure bone-black, deprived of all its calcium phosphate and carbonate

washing or by hydrochloric acid, has long and properly been deemed the best filtering material. The suspended matters are largely removed, both mineral and organic, the water coming through very bright; and dissolved organic matters are at first entirely oxydized. But here again we are confronted by a limitation of usefulness, for in a very brief period the material becomes inefficient.

In the experiments made at Netley it was found that animal charcoal had a very rapid and powerful effect for a considerable time upon dead or decomposed organic matter, but that it speedily allowed fresh organic matter to pass through with slight change. It was also discovered that the filtered water must be used immediately, since if kept it speedily became charged with minute organisms. Under these circumstances it is manifest that animal charcoal cannot be depended upon to purify water from disease-poison. The value of charcoal filter is in proportion to the purity of the water at the outset; and in any event, to be efficient with the best water it requires to be renewed every three months, and with very impure water as often as every fortnight.

Vegetable charcoal, peat charcoal and seaweed charcoal are less efficient than animal charcoal. Coke is perhaps the equal of the latter and retains its power a trifle longer.

The material obtained from roasting hematite ore, which has been very much lauded, is merely a porous metallic iron mixed with magnetic oxide closely resembling animal charcoal in appearance, and that occupies a space of about twenty cubic feet to the ton. Its action on water is both mechanical and chemical: it arrests suspended matter and oxydizes organic matter in solution. It also acts upon the water itself, decomposing it and setting free its oxygen, the latter being given up to the organic matter that may come in contact with it. Experiments prove that it can be depended upon to remove the greater part of dissolved organic matters, and in many instances all impurities, if the exposure be sufficiently prolonged; the water, moreover, comes through quite clear and pure, and may be stored for a long time without undergoing any change. Thus because of its retained filtering power, which is much more enduring than that of charcoal,

"porous" or "spongy" iron, so-called, becomes the most powerful and lasting of all filtering materials; the one drawback is that once it is fairly loaded with organic matter it must be immediately renewed.

"Magnetic carbide," as it is termed, is prepared by roasting in a retort equal parts of red hematite ore and sawdust. It is not nearly so good as spongy iron or animal charcoal. "Manganous carbon," for which everything is claimed, is a mixture of animal charcoal and black oxide of manganese surrounding a block of prepared carbon; the theory upon which it is built is a fallacy. So also of "carbalite," which is practically the same material, and, like the manganous carbon, is not available for large filtering-plants.

"Polarite" is another substance for which great things are promised—it is merely magnetic spongy carbon, consisting of oxide of iron with some silica, alumina, and carbonates; its action is somewhat similar to that of spongy iron, but considerably less effective. A house filter of this character quickly becomes "a delusion and a snare," and a source of danger rather than benefit.

The most recent claim is brought forward by Messrs. Girard & Bordas, of France, who assert that their material not only secures the destruction of all organic matters, but likewise insures perfect sterilization. The preparation—which of course bears a fancy name—is practically the same as manganous carbon with the addition of permanganate of lime. The theory is that the lime permanganate, in the presence of organic matters and micro-organisms, induces a decomposition whereby the whole is changed into oxygen, oxide of manganese, and lime, the micro-organisms being consumed. Unfortunately the practical results do not bear out the theory.

The question of purifying water in large quantities, or where it is required to supply large towns and cities, is still an open one, and deserves the best attention of the chemist. And as regards house filters, nothing has been found to equal the old-fashioned method of superimposing layers of charcoal, sand and gravel on felt, with frequent renewals of material. So-called porcelain and other filters with fancy titles, or that borrow the name of Pasteur, etc., in spite of claims made by

agents (whose knowledge is *nil*, and their promises those of the parrot), do not arrest organic matters after a few hours, and it is these matters that are the source of danger and cause of epidemic disease.

THE TENTH INTERNATIONAL MEDICAL CONGRESS.

The Lancet (London) declares the arrangements for the next International Congress, to be held in Moscow in August, 1897, are now being worked out by a special committee appointed for the purpose. There will be twelve Sections, devoted respectively to: Anatomy; Physiology; General Pathology and Pathological Anatomy; General Therapeutics; Internal Diseases; Children's Diseases; Nervous and Mental Diseases; Dermatology; Surgery; Ophthalmology and Otology; Obstetrics and Gynæcology; Hygiene; and Legal Medicine. The Russian Government has appropriated 35,000 roubles for the expenses of the Congress. The official language will not be Russian, as has been claimed, but French, though in the general meetings, of which there will be three, communications may be made in any European tongue. In the Sectional meetings but three languages will be permitted—French, German, and Russian. English-speaking members of the profession will regret their tongue is to be debarred, and that their only opportunity of reading papers in the English language will be in the three general meetings. This probably will greatly limit the English, Canadian, Australian, and American attendance.

MASTURBATION.

Doctor Russell, Superintendent of the Hospital for the Insane, Hamilton, Ontario, has grave doubts as to whether this vice ever induces insanity in those of good mental or physical constitution; but he has no hesitation in assuming that a weak mentality is an almost invariable cause of masturbation. He adds:

The public appear to be already over-educated on this subject, or rather improperly educated, and if there is one thing more than another that the public require protection against, it is the medical quackery practiced upon them by the ignorant cupidity of designing charlatanism. The country

is flooded with advertisements and pamphlets on this subject which tend to inflame and excite morbid apprehension in the public mind, with a large expenditure of money on medical nostrums which are worse than useless. There is no doubt that a good deal may be done in educating the public mind to more correct ideas on the subject of mental and physical culture, and it is gratifying to know that modern tendencies are all in this direction. The rage for athletic sports and out-door life within legitimate bounds, is strongly to be commended, and there is little to fear from masturbation where physical culture engrosses public attention. It is the youth who mopes around the house who shuns the companionship of his fellows, who is the spoiled child of over-indulgent parents who fear moral contamination by allowing him to mingle in the rough and tumble of life, that is in danger of suffering from this habit. His very desire for seclusion is evidence of a weak mentality and is usually hereditary. I have grave doubts as to the wisdom of singling out the subject of masturbation for lectures to the different sexes under the auspices of school boards or health boards. Under the general head of mental and physical culture it would not be amiss to refer to it; but to single it out for special attention would, I fear, be attended with unprofitable results. The great law of suggestion is to be reckoned with, and to many pure and unsophisticated minds of both sexes the subject might be both distasteful and repugnant. The true remedy for this and other forms of mental and physical degeneration is education on broad and general lines, the reading of good literature, out-of-door life, and healthy home environment.

It is high time common-sense ideas were taught regarding certain vices, particularly those that are best relieved by hygienic and moral surroundings. The victims themselves often prove the falsity of the "bugaboos" commonly promulgated, and then leave the regular for the wiles of the quack. The charlatanry of reputable medical men in connection with certain vices has tended to excitation rather than repression, and led many a patient to take refuge from an easily managed evil in one far more dangerous to health and morals.

WISDOM FOR THE HOUSEHOLD.

In the *North American*, Amelia E. Barr bewails the degeneracy of the modern American woman, adding with justice:

One of the saddest domestic features of the day is the disrepute into which housekeeping has fallen; for that is a woman's first natural duty and answer to the needs of her best nature. It must be noted

that this revolt of certain women against house-keeping is not a revolt against their husbands; it is simply a revolt against their duties. They consider housework hard and monotonous and inferior, and confess with a cynical frankness that they prefer to engross paper, or dabble in art, or embroider pillow-shams, or sell goods, or in some way make money to pay servants who will cook their husband's dinner and nurse their babies for them. And they believe that in this way they show themselves to have superior minds, and ask credit for a deed which ought to cover them with shame. For actions speak louder than words, and what does such action say? In the first place it asserts that any stranger—even a young uneducated peasant girl hired for a few dollars a month—is able to perform the duties of the house-mistress and the mother. In the second place, it substitutes a poor ambition for love, and hand service for heart service. In the third place, it is a visible abasement of the loftiest duties of womanhood to the capacity of the lowest paid service. A wife and mother cannot thus absolve her own soul; she simply disgraces and traduces her holiest work. Suppose even that housekeeping is hard and monotonous, it is not more so than men's work in the city. The first lesson a business man has to learn is to do pleasantly what he does not like to do. All regular useful work must be monotonous, but love ought to make it easy; and at any rate, the tedium of housework is not any greater than the tedium of office work. As for housekeeping being degrading, that is the veriest nonsense. Home is a little royalty. It is only the weakest, silliest women who cannot lift their work to the level of their thoughts, and so ennoble both.

EDITORIAL NOTES.

A Forgotten Scientist.—

Among the many interesting articles and notes in the last issue of *Asclepiad* is a biographical sketch (accompanied by a fine autotype portrait) of Doctor Thomas Young, from the pen of Sir Benjamin Ward Richardson. Doctor Young's mind was turned towards natural philosophy, and it was in that domain rather than in medical science that he earned distinction; nevertheless he did make some notable contributions to professional literature, as in 1813 he wrote, on "The Medical Facts of Climate," a paper that contains a large amount of valuable information, and also prepared an "Introduction to Medical Literature," including a system of practical nosology. A subsequent essay on "Consumption" attracted considerable attention. His observations on optics were the

foundation, so to speak, of modern ophthalmology, and in the Bakerian Lecture which he delivered before the Royal Society in the first year of this century he was the first to explain at length the dimensions and refractive qualities of the eye and the size of the pictures that are developed on the retina. In physical investigations he excelled, and especially in connection with interference and the wave theory of light. He died in May, 1828, just after completing his fifty-sixth year.

The New Photography.—

In No. 446 of the Chicago *Open Court* appears a beautiful specimen of the new Roentgen photography in the form of half-tones. First is given a reproduction of a photograph of a West African dove, opposite to which is placed a Roentgen photograph of the same, exhibiting accurately the outlines of all the skeleton. The two pictures are the work of the Hamburg State Library, and far surpass anything that has yet been exhibited in this line. The accompanying article explains the difference between the cathode rays and the Roentgen rays.

Tabes Mesenterica.—

Recently Doctor J. C. Fahnestock published a paper claiming baryta iodide as almost a specific for this malady. If the claims made are true, or even half-true, they constitute one of the greatest discoveries of the nineteenth century. Two cases of tubercular meningitis were also relieved by this remedy, and it has been found of benefit in enlargement of the lymphatics, torpid and enlarged spleen, and promises to be "of value in obscure diseases of the pancreas."

We would gladly hear more of this agent.

Ice Bells.—

Near Shopi, in Japan, there is a wonderful cavern containing immense quantities of ice which never melts away. In one place huge icicles, depending from the roof, have formed upon the floor beneath—through the slow dripping of water—a score of great hollow cylinders, some of which are five feet in height, looking like inverted crystal bells. When these are carefully struck they give forth gong-like notes.

Items and News.

An Asiatic Habit.—

The population of the Crimea is made up of Tartars, Karaimes, and Tziganes, whose manners and customs are in a primitive state. While, according to their religion, the Tartars must not consult the doctors, they admit as an exception external treatment, such as massage, friction, etc. Naturally the dentist is unknown to them; nevertheless I was astonished to see such fine teeth, two rows shining in each Asiatic face. When taking professional information I observed a habit, especially among women, of chewing a white substance—it was “gummi mastich,” and an addition of white wax gave it a slimy consistence. This habit has also been observed in Siberia, though the Crimea and Siberia are far apart and include different nations. According to Faimenoff, the fine teeth of Tartar women are due “to chewing a kind of mastic mixed with tar or sulphur; by its use the teeth are developed, and cleansed as well as if using a dentifrice.” Consequently dental caries is of rare occurrence in childhood and youth, except where the children are forbidden to use the mastich, it being deemed by some a vulgar habit.—M. S. BROUSSILOWSKY, in *L'Odontologie*.

Ancient Recipes.—

The Egyptian origin of many medical recipes has recently been demonstrated by Professor Georg Ebers. Old medical recipe books, both English and German, contained, down to the very end of last century, the formulæ, if they may be so termed, of remedies which are found in ancient Egyptian papyri. The problem is, how did these prescriptions find their way from Egypt to Europe? Clearly not through the Greek writers, since their works contain nothing of the kind. Ebers suggests that they were handed down by the famous old school of Salerno, the teachers of which are known to have been acquainted with Egyptian medicines through Coptic and Arabic translations; one of the most celebrated, Constantinus Africanus, visited Egypt and “conveyed” a good deal of the medical lore which he learned there into his own writings. Ebers gives a number of examples, showing how recipes for eye-lotions, methods of treating prolapse of the womb, predicting the sex of an unborn child, etc., which appeared in old English and German books, could be traced back to Egyptian sources.—*Kansas City Medical Record*.

A Grievance!—

There is not a medical school in America that owes so much of its success to the medical press as the Johns Hopkins, but the returns are all blanks. It has never paid to any journal a single dollar. Not only so, but its faculty is of so superior an order that it feels under the necessity of creating a publication that shall be all its own, and none of its pages be defiled by the contributions of other physicians. The policy mentioned is narrow, illiberal, and unworthy of American citizens. There are some good things about Johns Hopkins, but they are limited, and their equal or superior may be found elsewhere. Let the medical press of the United States shut out from their pages absolutely the name of Johns Hopkins and of every one of the faculty of that institution, and at the end of a year it might be buried, and the death return would say: Died of “dry rot.”

Personally, we have no grievance at Johns Hopkins, but the medical profession has, and particularly that portion of it represented by the medical press.—*Cleveland Medical Gazette*

Poisoning by Stale Eggs.—

Doctor Cameron reports the occurrence of vomiting and purging in seventy-four nurses and girl-pupils in the boarding-school attached to a convent in Limerick, following dinner at which mutton and a custard composed of eggs, milk, corn-flour, and sugar were eaten. The corn-flour was suspected to contain arsenic, but analysis showed it to be free from poison of any kind and of good quality; the sugar also proved to be pure. The vomit and the stools were intensely green from the presence of biliary matter, but careful analysis failed to disclose the presence of ordinary poison. The viscera of two patients who had succumbed were also examined, but no poison was found. Potomains were found present, but in small quantities. The milk used had been boiled, and the meat was above suspicion. The eggs, however, were not fresh, and one presented a reddish brown color and was thought to be bad. Some of the custard, given to pigs, induced severe diarrhœa.—*Dublin Medical Journal*.

Insoluble Dragees.—

The pharmacist is usually very careful when making pills and tablets, that the compression is not so great as to prevent breaking up in the stomach and ready solution. We have known cases where coated pills passed through the intestinal canal unaltered. The *Pharmaceutical Journal* mentions a case where the intestinal canal was so impacted

with tablets as to render an operation necessary. A patient had been taking, under the advice of a physician, salol tablets for some time before it was apparent intestinal obstruction existed of so grave a character as to require an operation, when it was found the intestine in the region of the cœcum was packed with tablets.

The more freely comminuted and loosely packed an insoluble or sparingly soluble remedy, the easier it is absorbed by the system, and consequently substances like salol should never be given in tablet form.—*New York Medical Times*.

Ownership of Papers.—

The question of ownership of the papers read before a medical society had an illustration in the recent action of the Medical Society of the County of Kings, Brooklyn, N. Y., which, by a vote of thirty-two to twenty-one, expressed its disapproval of the conduct of Doctor J. B. Mattison, who persisted in publishing in various journals and in the public press papers read before that Society without gaining permission from the latter.

To the impartial observer it would seem that if a man cares enough for a Society to read papers before it, its laws should be observed.—*Atlantic Medical Weekly*.

Suggestive!—

William N. Hart, of San Francisco, went to the Pasteur Institute, New York, July 7th, to undergo treatment for cancer. The disease was not arrested, and he died after three months' treatment. The reason given for the failure was that the cancer was too far advanced when the patient applied for treatment.

Also a patient from the South recently died of hydrophobia after having undergone the Pasteur treatment in the same institution, soon after being bitten by a dog. He was discharged as cured, but died from the disease a short time afterward.—*Medical Tribune*.

Cremation.—

There are twenty-six cremation associations in active operation in the United States. The oldest was organized at Washington, Pa., in 1876, and the two newest are found at New Haven, Conn., and Elizabeth, N. J. (1894). The number of incinerations reported is 3670. The number incinerated in Europe from 1876 to 1893 was 19,700. The membership of the American associations is about 8000 and the adherents of the method about 100,000.—*Tribune Almanac*.

Is This True?—

In the *Medical Record* Doctor Bates gives four cases of painful vision which persisted when gold-framed spectacles were worn, and were relieved by preventing contact of the gold with the skin by interposition of paper or vulcanized rubber, and by change to steel frames.

Eminently Proper.—

The women of Kentucky are circulating a petition among themselves which they will present to the Governor, requesting that he appoint only married men as resident physicians at the various insane asylums in the State.—*Cincinnati Enquirer*.

Avoid During Pregnancy.—

Salicylate of soda; ergot; emetics; purgatives—castor oil, mineral salts, and especially podophyllin and aloes; quinine in large doses—if given at all it should be in combination with opium.—HUGENIN.

The Bicycle.—

Doctor John T. Davidson believes excessive use of the bicycle will lead to impotency in the male, especially when there is an already hyperæsthetic deep urethra from an old gonorrhœa.

In the Nursery.—

"Willie, I hear you struck your little brother." "Yes, papa. He drank all the ink, and wouldn't eat the blotting paper I gave him to dry it up."—*Lustige Blätter*.

The American Microscopical Society.—

This organization announces it will hold its eighteenth annual meeting August 18th to 21st in Pittsburgh, Pennsylvania. William C. Krauss, Buffalo, is the Secretary.

Candle Power.—

This term, so often used now-a-days as a unit of light, signifies the amount produced by a sperm candle one-sixth of a pound in weight, burning 120 grains an hour.

Very True.—

There are braying men in the world as well as braying asses, for what is loud and senseless talking and swearing any other than braying?—*L'Estrange*.

A Pointed Aphorism.—

No man who has once heartily and wholly laughed can be altogether and irreclaimably depraved.—CARLYLE.

Book Reviews.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

In the March issue J. Campbell writes of "The Nature of Robert Burns." "Human Stirpiculture" is by W. J. Lhamon; "Affinities," by Mary H. Lloyd; "Snap Shots at Deer and Moose," by A. C. Shaw; "The Men who Made McGill," by A. H. U. Colquhoun; "A Quintette of Veterans," by J. E. Atkinson; "Only Justice," by William B. Cameron; "Photography Extraordinary," by F. T. Thomason; "Kate Carnegie" (continued), by Ian Maclaren; "The Judge's Guinea," by Charles P. Dwight; "Sea Dreams," by J. E. Maybee; "The Church's Fatal Mistake," by W. A. Douglass; "Nondescript," by Ella S. Atkinson; "Lowell's Book on Mars," by The Editor; "Hidden Gold," by J. J. Bell; "Current Thoughts." The poetry of the issue is contributed by John McCrae, Florence H. Randal, Reginald Gourlay, Agnes I. Bayne, Edward B. Nicholson, A. B. DeMille, Isabelle E. Mackay, and others.

SUN AND SHADE. Price, 50 cents; \$5.00 per year. The New York Photogravure Co., New York.

The oil *fac-simile* in the February number is entitled "A Startling Paragraph," from a painting by T. G. Vibert. Then follows a photogravure, a portrait of "Ellen Beach Yaw," a copy of a painting by Brigden and Geister, and "The Life Boat" from a painting by A. Morton. "My Special Pet" is a photogelatin photographed by Schloss from life. "Landscape with Sheep" is from a photograph by R. S. Redfield; "The Evening Wind," a photogravure from a painting by F. K. M. Rehm. There is also a photogelatin showing some of the choice architectural features of "The Capitol at Albany."

COSMOPOLITAN. Price, 10 cents; \$1.00 a year. Cosmopolitan Publishing Co., Irvington-on-the Hudson, N. Y.

The March issue opens with a contribution by Harriet Prescott Spofford, entitled "The Godmothers;" "Empire-building in South Africa" is by Albert Shaw; Adam Badeau writes of "The Mystery of Grant;" Major Edmond G. Feché, of the "Death of Sitting Bull;" "Old English Silver" is by S. Leverett Johnson; "Upland Pastures," by Ninetta Eames; "The Art of Making Up," by Sarah Bernhardt; "Butterflies," by James L. Allen, is continued; "The Sad Fate of a New Woman" is by Julian Ralph. There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for March 7th contains: "The Improved Housing Conference," "Shrinkage of Wood," "Planning and Construction of American Theatres," and the usual Editorials, Notes and Comments, Book Reviews, Legal Notes, Industrial Progress, etc. An elegant sketch is given for a country home, also sketches for Colonial farm buildings, and representations of the Wool-Exchange Building, New York, and the edifice of the Real Estate Title and Trust Co., Philadelphia.

DONAHOE'S MAGAZINE. Price, 25 cents; \$3.00 per year. Donahoe's Magazine Co., Boston.

The table of contents for March is a happy combination of sketches, poems, and stories. Charles Robinson gives a close study of "Leo XIII. and the Peace of Europe." A delightful memorial article on William Florence is by E. R. Byram. "The Three Josiah Quincys" is by M. E. Hennessy; "The Strength of St. John's Fold," by G. L. d. Cidoncha; "The Letter of the Law," by John J. O'Shea. The poetry, editorial matter, and departments are good, as usual.

DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Arts Trades Publishing and Printing Co., New York.

The March issue contains a number of suggestions regarding amateur house-decorations, clubs, exhibitions, and art matters generally. Of more than usual interest are the departments devoted to Decorative Textiles, Fabrics, Furniture and Furnishings. There are the usual editorials, and departments of Mural Decorations, Pottery, Glass, etc.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Co., New York.

The March number contains: "Psychology as a Science," by Alexander Wilder; "Whence and Whither," by Cora L. Daniels; "The Eleatics and Chinese on 'Being,'" by C. H. A. Bjerregaard; "Sympathetic Vibration in Nervous Attraction," by J. E. Purdon; "Metaphysics and Social Elevation," by W. Colville.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. The Anthropological Society, Washington.

The March issue contains "Seven Veneerable Ghosts," by J. W. Powell; "Expedition to Papequeria and Seriland," by W. J. McGe

There are the usual Book Reviews, Notes and News, and Bibliography of Anthropologic Literature.

THE ROYAL NATURAL HISTORY. By Richard Lydeker, B.A., F.R.S., F.Z.S. Vol. III, No. 2. Imperial 8vo; pp. 96. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

The issue for November 15th, 1895, continues the description of the order Rodentia, embracing the beaver, musquash, rats, mice, ferboas, lemmings, voles, moles, and gophers. Chapter xxxiii deals chiefly with the porcupine-like rodents, including the families Octodontidae and Hytriciidae, which embrace the porcupines, chinchillas, agutis, viscachas, pacas, caviés, and carpinchos. Two elegant colored plates accompany this issue—one of the crested porcupine, and the other of harvest mice.

Chapter xxxiv, which began in the previous number, is concluded in the issue of December 1st (No. 3, Volume III), and is devoted to the picas, rabbits, and hares. Chapter xxxv deals with the Edentates—sloths, ant-eaters, armadillos, glyptodons (extinct species), pangolins, and aard-warks. Chapter xxxvi is devoted to the pouched mammals or Marsupials, and describes no less than thirteen forms of kangaroo or wallaby, besides kindred extinct forms. Then follows the Phalanger tribe, of which thirteen forms are listed, including one extinct; the wombats, the bandicoots, dasyures—which latter include the Tasmanian wolf and Tasmanian "devil," the marsupial rats and mice, and opossums. Chapter xxxvii deals with the egg-laying mammals, or Monotremes, notably the echidna, the platypus or duck-bill and allied extinct forms. The colored plates of this issue picture the two-toed sloth and the red kangaroo.

Volume IV, No. 3 (December 15th, 1895), is the beginning of the Ornithological portion of this work. The initial plate, "Some Glossy Starlings," is one of the most beautiful displays in color that we have ever seen in any work. The second plate gives the weaver birds, also in a wonderfully life-like manner as to position, size, and coloring. The initial chapter deals chiefly with general characteristics; the next succeeding with the perching birds, which include the crow tribe, blackbirds, jays, magpies, chough-thrushes, birds of paradise,—too numerous to be specifically mentioned,—the starlings, bower-birds, grackles, orioles, drongos, cassiques, hangnests, ice-birds, cow-birds, troupials, weaver birds, anagers, and honey-creepers. Chapter iii opens with the family of finches, and specifically describes the grosbeaks.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By Robert W. Taylor, M.D. Cloth; 8vo; pp. 1002. Price, \$5.50. Lea Brothers & Co., Philadelphia.

Venereal maladies stand alone among human disorders in their importance to every practitioner, whether of medical, surgical, or any of the special branches; especially from the fact that every tissue of the economy is liable to their action, and every other disease consequently subject to modification in their presence. To be sure, the later methods of treatment have rendered these maladies peculiarly susceptible to control; nevertheless, so long as the human race lasts, a large share of its ailments will arise from venereal sources or be complicated thereby.

The author of this volume has long occupied a leading position in connection with this branch of medicine, both as teacher and practitioner. He is well known also for his association with Bumstead in former works on venereal diseases, as well as by his own great Clinical Atlas. During the years that have elapsed since the fifth edition of Bumstead's work was exhausted, Doctor Taylor has been assiduously engaged in collating the results of the researches in venereal pathology and therapeutics, modifying the same in the light of his own experience, and condensing all into a mass of information completely modern and authoritative. Thus the work is practically new as to text and illustrations, and at once steps into the foremost position among volumes of its class.

MEDICAL DIAGNOSIS WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. By J. M. Da Costa, M.D., LL.D. Cloth; 8vo; pp. 1104. Price, \$6.00. The J. B. Lippincott Co., Philadelphia.

This is the eighth edition of a medical work recognized as authority in every country where English is spoken, and constantly employed for reference by all civilized authors. It has been thoroughly revised, many of its chapters rewritten, new matter inserted, old matter in parts condensed; likewise has been incorporated whatever there is of bacteriological interest that promises to be valuable for diagnostic purposes. The introduction of a number of additional woodcuts and of temperature charts taken from cases actually observed, conduces greatly to clearness and accurateness.

Finally, the object of this work is what its title implies, the consideration of medical diagnosis. Cognizance is also taken of the prognosis of individual affections, and the records of cases occasionally introduced are valuable. The illustrations are all original,

and from sketches or based on sketches taken directly from cases of interest.

For years this has been a reference book upon our table, and we hold it absolutely indispensable to every medical man who aims to keep abreast of the advance of his art.

THE BURIED CITIES OF VESUVIUS—HERCULANEUM AND POMPEII. By John Fletcher Horne, M.D., D. Sc. Cloth; 8vo; pp. 113. Hazell, Watson & Viney (Limited), No. 1 Creed Lane, Ludgate Hill, E. C., London, England.

This is an exceedingly interesting brochure, and is marked by a colloquial and familiar style, arising from the fact, as the author states, that the contents originally formed part of a popular lecture intended for a mixed audience.

Most valuable glimpses are given of life in Pompeii and Herculaneum eighteen centuries ago, in what was doubtless the most civilized period of ancient Roman history; and the book is doubly interesting from the fact it shows the decay and approaching extinction of pagan idolatry and the dawn of Christian life. The volume is beautifully illustrated with photogravures in umber. Nowhere can so much practical information be found in such small space regarding the two most fashionable cities of the ancient Roman Empire.

A TEXT-BOOK OF PHYSIOLOGY. By Michael Foster, M.D., F.R.S. Cloth; 8vo; pp. 922. Price, \$4.50. Lea Brothers & Company, Philadelphia.

The fact that a new edition of this text-book is required in less than two years after the publication of the last, is corroborative of its great value to the physician. Professor Foster is unquestionably the foremost physiologist of the day, and his text-book has run through many editions in both Great Britain and America. In the present issue, emendations and erasures have been made with a view of making the volume more practically serviceable. Only "dead wood" has been thrown aside, and the volume is thus improved in brevity, clearness, and conciseness of expression. Even the illustrations have been largely re-engraved. It is remarkable that a work of such size, embodying such details in both authorship and publication, should be offered at such an attractively moderate price.

PREGNANCY, LABOR, AND THE PUERPERAL STATE. By Egbert H. Grandin, M.D., and George Jarman, M.D. Cloth; 8vo; pp. 260. Price, \$2.50.

This work is a capital guide to the practice of obstetrics, and moreover is clinical in its

aim as regards teaching. Obsolete and unessential anatomical, embryological and pathological data are carefully ignored, which renders the volume more practical to the busy practitioner.

Of the illustrations we cannot speak too highly. Fidelity to nature, rather than artistic effect, has been the aim, and the authors certainly have made a most excellent departure in securing photographic plates especially for this work. We are truly glad to see that the old-time cuts which have illustrated medical works for the last quarter of a century are relegated to the background.

As the title evidences, the volume is made up of three separate parts, each of which is very complete in its details.

UNDER THE CORSICAN. By Emily Howland Hoppin. Cloth; 12mo; pp. 333. Price, \$1.00. J. Selwin Tait & Sons, New York.

This belongs to the class of historical novels. It deals with the time of the First Napoleon, and gives a most excellent picture of Paris and of French scenes under the First Consulate, with views here and there of the plotting and scheming of the times. The chief actor of the tale is a young aristocrat, selfish and snobbish in spite of his poverty, who seeks to assassinate the Emperor in retaliation for the execution of Duc d'Enghien. He ruins a young girl while he "sponges" upon the bounty of her father; his only redeeming trait is his regard for another young nobleman, which leads him to deliver himself to justice. The courting of a bourgeois woman by his friend is an exceedingly well drawn picture, the climax being hinged there upon.

A TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By John V. Shoemaker, M.D., LL.D. Third edition; cloth; 8vo; pp. 1008. Price, \$5.00. The F. A. Davis Co., Philadelphia.

This work has been before the medical profession for several years, and evidence of the satisfaction it has given is afforded by the fact that a third edition is demanded. We note especially that the work is now in one volume instead of two, as formerly; that it has a very complete index; and that the sequence of preparations has been made to accord with the United States Pharmacopœia of 1890. The natural forces and physiological agencies discussed in this volume are of great importance to practitioners, and of more avail than mere drugs. The work brought very thoroughly up to date, the most recent compounds finding place.

Therapeutic Brevities.

The Treatment of Exophthalmic Goitre.—

Doctor William C. Krauss urges the use of atrophanthus for the purpose of relieving the tachycardia, quoting an experience of ten cases so treated with uniformly good results. It may be noted that in one case the drug was administered for a period of six months. Ferguson, of Troy, is quoted as having had a similar measure of therapeutic success.—*Medical Press and Circular*.

Doctor Arthur J. Hall thus summarizes his experience of the various medicinal methods: Belladonna, occasionally beneficial, and always worthy of a thorough trial: Local application of cold by Leiter's tubes to the præcordium, in some cases much relief, but only temporary: Faradism to the pneumogastric—one pole on the neck, the other over the heart—often caused considerable temporary improvement: Removal of the right lobe and isthmus of the thyroid gland, in the case of a young woman aged twenty-three, seemed to cause temporary improvement, but in the course of a month a relapse into her former condition had occurred. Doctor Hall also quotes two cases in which, on post-mortem examination, enlargement of the thymus was discovered. He has tried feeding on extract of thymus gland, but without good results.—*British Medical Journal*.

Doctor Cheadle regards opium as the drug which on the whole exerts the most favorable influence in controlling the palpitation, vomiting, and diarrhoea. Small doses are recommended by Doctor Goodhart, who also advocates rest, with the administration of strychnine, cod-liver oil, and other remedies which are likely to improve the condition of the nerve centres.—*Clinical Journal*.

Doctor Watson Williams reports a case with unilateral symptoms, in which he tried both thyroid and thymus treatment, but each rather aggravated the condition than otherwise. The recognized antithesis of myxœdema and Graves' disease suggested to him as a therapeutic measure the injection of serum (obtained from blisters) of myxœdematous patients, but the result was negative. Peripheral stimulation, by the application of the galvanocautery to the nasal mucous membrane, had a favorable influence on the prognosis.—*Glasgow Medical Journal*.

Pilocarpine in Diseases of Lymph-glands.—Subcutaneous injections of pilocarpine are followed by a distinct increase in the number of leucocytes, and as the drug exerts no local

irritation I determined to try it in lymphatic enlargements. The results were highly successful in the inflammatory enlargements of the lymph-glands accompanying scarlet fever and measles in children. One part of pilocarpine hydrochlorate was dissolved in 400 parts of water, and of this solution sixteen minims (one twenty-fourth of a grain) constituted a dose. This amount can be given daily for a week or ten days to children three years old, and seldom causes salivation or sweating. In some cases the daily amount for children of three years or under may be increased to one-twelfth of a grain. In a case of multiple lymphoma and in a case of lupus of the hand the remedy gave good results. Pilocarpine in daily doses of one-fiftieth to one-twelfth of a grain was also used in seven cases of streptococcus angina in children ranging from three to eighteen years; all recovered, and in only one case did the drug cause sweating and salivation.—WALDSTEIN, in *Berliner Klinische Wochenschrift*.

Conjunctivitis, Iritis, etc.—Fluid extract gelsemium eight to fifteen drops, pure water half an ounce; also, borate of sodium, five to fifteen grains in half an ounce of pure water. Use three or four drops of each every alternate hour in conjunctivitis; and if the bowels are not active, give podophyllin, two to four grains, once or twice a day, so as to keep up free action. A slippery-elm poultice should be applied to the eye at night.

A similar treatment is efficacious in the treatment of iritis, leaving out the borate of sodium, and giving aconite and belladonna internally. I have recently treated a very severe case of iritis with the above prescription, and the result was all that could be desired. Don't forget it: Gelsemium is the local remedy for the eye *par excellence*. It is not often that I claim originality, but I do claim it in the use of gelsemium as a local application for inflammations of the eye, and I have used it successfully for fifteen years. Others may have used it, but I have never seen it recommended, and in fact cannot call to mind that I have at any time seen it mentioned in this connection.—DOCTOR CARTER, in *American Medical Journal*.

Bicycle-riding.—The wheel is often the primary or exciting cause of serious rectal troubles, and I cannot think of any affection of the rectum that it will not aggravate. I have seen several cases of fissure, external piles, and pruritis ani, where riding ceased to be a pleasure, and in two where it could not

be tolerated. Many of the simpler troubles will disappear when the wheel is discarded for a while; others of a more serious nature will need surgical treatment.

In attacks of acute diarrhœa, where the anus is excoriated from watery evacuations, and the rectal mucous membrane congested and often inflamed, the bicycle adds more fuel to the flame, and is often the direct cause of a fissure, rectal ulcer, or internal hæmorrhoids; while on the other hand the friction from the saddle produces an excoriation about the anus, and defæcation acts as an exciting cause to produce the same affections, which when once fully developed demand nothing short of surgical interference and discontinuance of bicycling.—DOCTOR BLACKBURN, in *Louisville Medical Monthly*.

Uses of Chloroform.—Chloroform is valuable employed externally in liniments, in cases of muscular rheumatism, and for stiffness of muscles due to strain or excessive exercise. Possessing, as it does, not only counter-irritant but anæsthetic effects, its employment in this manner is most advantageous. Another use to which it is too rarely put is for the production of counter-irritation varying from slight reddening to actual blistering of the skin. Slight reddening is rapidly produced by applying a cloth saturated with chloroform to some portion of the skin so remote from the respiratory apparatus as to avoid inhalation in any large quantity; and the blisters may be formed by placing chloroform on the skin under a watch-glass, so that too rapid evaporation will not take place. For those who are unable to take opium in any combination for the relief of pain in any part of the body, a prescription composed of thirty drops of spirit of chloroform and ten minims of the normal liquid cannabis Indica is a valuable prescription.—*Therapeutic Gazette*.

Cactus Grandiflorus.—There is one condition in which Cactus becomes king of all cardiac remedies, and that is where the heart is feeble and the vessels are atheromatous or in a state of arterio-sclerosis. Here, ordinarily, unless the heart weakness is appalling, and the least of two evils, do-nothingism or death, confronts one, the routine cardiac tonics are positively contra-indicated.—If cardiac force be applied to the stiff arteries too rapidly, they may rupture, with all the dire consequences of hæmorrhage (cerebral, most likely). Atheroma or arterio-sclerosis is not a contra-indication for the administra-

tion of Cactus, but on the contrary is a strong indication for its employment. I have given it continuously, and in material doses, too, to people so old that their arteries were as stiff as pipe-stems, the heart also participating in the senile change, for periods varying from six months to two years, and with benefit only. Cactus is pre-eminently the heart tonic of the atheromatous and the arterio-sclerotic.—DOCTOR E. R. SNADER, in *Homœopathic Recorder*.

For Grave Anæmia.—Doctor Mennella, of Rome, treats grave anæmia successfully by the simultaneous administration of Iron and Iodine by hypodermatic injection. The following are the formulas:

R Metallic iodine, 3 grains.
Iodide of potassium, q. s. for solution in
Distilled water, 1 ounce.

For hypodermatic injection.

R Ammonio-citrate of iron, 15 grains.
Distilled water, 1 ounce.

For hypodermatic injection.

The following is the mode of use: At the same sitting a Pravaz syringe of the first solution is injected into one of the buttocks, an equal quantity of the second solution being afterwards injected into the other buttock. These injections may be given daily, and even twice a day. The therapeutic effect shows itself very quickly.—*The Practitioner*.

Digitalis and Children.—There are some children who are peculiarly susceptible to the effects of a dose of any preparation of digitalis,—yet there is no drug of greater utility in the realm of pædiatric therapy, or one more abused. Physicians seem to forget that the most gratifying effects are obtained from small doses rather than large, and that there are children who react in a peculiar way. Some preparations of digitalis have absolutely no effect on these cases in small doses, yet when the larger dose is given, or a substitution made—as, for example, the powder replaced by the fluid extract—striking digitalis effects supervene, as is evidenced by the action of the heart. These patients should never receive digitalis in any form, for the drug is to them a direct cardiac poison.—KOPLIK, in *New York Medical Journal*.

Treatment of Zona.—M. Albert Robin commences with the administration of a saline purgative, preferably sodium sulphate. For the eruption, it is essential that it be kept

dry. The application recommended, which will also relieve the pain, is composed of powdered starch 60, zinc oxide 15 to 20, powdered camphor 1 to 3, and finely powdered opium 1 part. In old people the eruption should be closely watched to prevent ulceration. The neuralgia which precedes and accompanies the eruption is treated by four pills daily, each containing one-sixth of a grain each of extract of *Datura stramonium* and extract of gelsemium, and one-twelfth of a grain of extract of belladonna. If these pills should fail, some analgesic is to be substituted. For the neuralgia consecutive to the eruption, give subcutaneous injections of sodium glycono-phosphate.—*Bulletin Général de Thérapeutique*.

Theobromine.—Huchard says that for two years he has employed theobromine as a diuretic in cardiac and renal affections, and considers it much superior to digitalis and caffeine. He gives the first day six powders of ten grains each, the second day eight powders, and the third day ten. This dose he considers the maximum, but it may be continued for three more days. Sometimes, in order to prolong the diuretic effect, he gives the day following one-fiftieth grain of digitaline. Theobromine is not toxic, nor does it injure the renal epithelium; it is especially useful in interstitial nephritis and those heart diseases complicated with kidney lesions.—*Medical Press and Circular*.

Vaccination and Syphilis.—Syphilis is to be guarded against in practicing vaccination. The patients vaccinated with lymph taken at the end of vaccination have been found to be more liable to acquire the disease than were those inoculated from the fresh pustules. If syphilis is thus communicated, the chancre appears at the seat of vaccination, after the usual period of incubation, and is followed in turn by the secondary symptoms. If the person is latently syphilitic, the lesions will follow each other in quick succession. The course of the vaccine pustule will be normal. Syphilis can never follow vaccination with animal lymph, except by criminal carelessness on the part of the operator.—*Charlotte Medical Journal*.

Phosphoric Foods.—It has never been scientifically demonstrated that fish and other phosphoric foods can appreciably improve the brain and mind. Fishermen, for example, and fishmongers, who may be supposed to live largely upon fish, have never shown themselves to be in any measurable degree

more intellectual than their neighbors; indeed, it may be plausibly argued that they are a little less so. The truth is, that that particular food which best agrees with the particular individual, and which best maintains his general health at a high level, is the best for the brain and every other organ of the body, as well as for the whole man.—*The Hospital*.

Fibroids Cured by Thyroid Extract.—Jouin states he has successfully treated several cases of myoma of the uterus by thyroid extract. He gives daily the equivalent of half a thyroid gland. Out of five cases, two distinctly improved. In one the tumor distinctly diminished in size. Menorrhagia is much diminished by this treatment. As in other classes of patients, hæmorrhoids present in at least one case were greatly relieved.—*British Medical Journal*.

Phytolacca.—This, under old nomenclature, was called alterative. It is a remedy for crusta lactea; also for mastitis, both applied locally and given internally. The mammary gland should be anointed with lard or butter, or oil, before applying the poultice. It is recommended in rheumatism, and some cases are benefited by it if alternated with alkalis.—JOSEPH ADOLPHUS.

Berberis Aquifolium.—This remedy appears to be a very valuable drug in some respects. The Dispensatory says it is very useful in chronic syphilitic and scrofulous cachexia, and in chronic skin diseases especially of a scaly type. It is also a good remedy to clear away pimples from the faces of girls.—*Medical Recorder*.

Constipation.—If constipation exists in connection with functional dyspepsia, the positive pole attached to the Einhorn electrode in the stomach, and the negative pole connected with the rectal electrode, often yields excellent results.—J. M. CARTER.

Lactic Acid.—As a rule, Doctor Cantrell prefers this agent over other caustics to be used about the face, because its action is so easily checked by dusting powdered starch over the part operated upon.—*Philadelphia Polyclinic*.

Psoriasis.—Doctor Hammer finds Chrysarobin in chloroform (one to ten) to be the most successful treatment.—*Summary*.

Medical Progress.

RELATION BETWEEN CHOREA AND RHEUMATISM.—The protean aspect of the causation of disease is, to say the least, bewildering, if one is to take the ordinary text-book as authority. Over- or under-feeding, too much heat or too much cold, excessive humidity or dryness of the atmosphere, exposure to the weather or close confinement to well protected buildings, miasm (whatever that is) or the omnipresent germ—each and all of these may be assigned as possible ætiological factors to any number of diseases. In certain cases, however, cause and effect stand so closely interrelated that no room for doubt is left in the minds of even the most superficial observer. In the latter category rheumatism and chorea, standing the former for cause and the latter for effect, would undoubtedly fall. Indeed, the veriest tyro in medicine knows something of the intimate relationship between them.

Let me briefly review the grounds for belief: Germain Sée found, out of 109 cases of rheumatism, sixty-one followed by chorea, and out of 128 chorea patients sixty-one (or about one-half) who suffered with rheumatic pains in the joints; Strumpell found that more than one-half of his choreic clinical patients gave the history of rheumatism in themselves or parents, or had unequivocal signs of heart disease; McKenzie, of England, from an analysis of seventy-two cases, found that rheumatism had pre-existed in nearly one half, and that there were strong grounds for believing that it had been antecedent in very much larger proportion; Goodhart gives a record of thirty fatal cases of chorea when endocarditis, in the form of vegetation on the valves, was present in twenty-eight, doubtful in one, absent only once; Pepper's "System of Medicine" says "rheumatism is certainly a predisposing cause of chorea," and goes on to show that in 280 cases examined, one-third gave evidence of pre-existing rheumatism or then existing endocardial murmurs. These are records the truth of whose conditions have been substantiated by scores of other observers.

Up to this point the profession is practically a unit—so much so that on a case of chorea presenting itself to a physician, the question as to the pre-existence of rheumatism should naturally arise in the mind. So if I have a case of rheumatism in a child, I always warn the parent of the probability of chorea. Now, is it possible that there may be a relationship even more intimate than that of cause and effect? When we get be-

yond this fact we are treading on debatable ground, and yet occasionally a case comes up in one's practice which would suggest the possibility, at least, of a closer connection. Let me here cite two cases that came under my own observation during the past few years:

A tailoress, aged 28, complained of precordial pains and nervousness, the former partly the result of indigestion, the latter evidenced, as I at once observed, by slight twitchings of the left hand and arm. Questioning as to the latter, she said that when nine years of age she was attacked with acute articular rheumatism, which affected nearly the whole body, and persisted in spite of medicine until spring. As winter weather came, the rheumatism gradually lessened, but shortly afterwards showed signs of increasing. Muscular twitchings of the hand and arm commenced, and as one disease subsided the other developed until at times she was unable to sit on a chair. During the whole summer there was almost absolute freedom from rheumatism, but the chorea remained at its worst. On the approach of cold weather a reversal of the order took place, the chorea gradually subsiding as the rheumatic affection assuming prominence. Thus it went on for seven successive years when a final summer attack of chorea drew the curtain upon the scene which had been so trying to the patient and doctor—but not quite completely, for the spasmodic twitchings of the hand and arm, which I mentioned before, have persisted ever since (that is, for thirty-seven years), constituting a chronic chorea.

When a clinical clerk in Toronto General Hospital, I saw a female factory operative, aged 17, who complained of nervousness and cardiac palpitation. Very cursory examination revealed the former to be choreic in character, and a distinct mitral incompetency was evident. The facts elicited were as follows: About a month before she had suffered joint pains, not very severe and not requiring a physician; after persisting for a time they gradually left, and the choreic condition developed, which, under treatment, also improved. There still persisted enough of the old pain to justify the diagnosis of rheumatism, if, indeed, it needed such justification, with the cardiac murmur then existing.

Under salicylates, both patients improved. These are merely two specimen cases; I could cite several more.

From an ætiological and pathological standpoint, rheumatism and chorea are plunged in obscurity. We know very little as to the causation of the one or the morbid anatomy of the other. Every few years some new

theory is developed to explain some hiatus in previously existing theories, only to be found wanting when exposed to the searchlight of scientific investigation. The lactic-acid, the bacillar, the nervous theory, that which holds to an excess of sulphur in the blood, and that which attributes the condition to imperfect metamorphosis—each of these has been presented as explaining the ætiology of rheumatism. With chorea, on the other hand, hyperæmia of the brain or cord, hyperplasia of the connective tissue of the latter, embolic plugs in the cerebral capillaries, rheumatic inflammation of the connective tissues of the cerebro-spinal system, are all claimed as pathological factors. Notwithstanding, however, that there is so much we do not know, the common valvular complications of rheumatism and the endocardial lesions found in almost all fatal cases of chorea are something proven beyond doubt by clinical and post-mortem tests. The endocardial lesion in fatal cases of chorea has led to the extreme view that chorea and rheumatism were simply two phases of one and the same disease, while other observers, noting the frequency with which chorea results from other causes, as fright, nervous shock, have refused even to give rheumatism an important place as a causative agent in chorea.

In this as in all other cases, the truth lies probably in the middle ground. There certainly is a close connection between the two diseases, and yet chorea is not rheumatism nor rheumatism chorea, unless, indeed, we regard rheumatism as a neurosis, which is doubtful. I am inclined to regard the frequent post-mortem fibrinous deposits or granulations discovered as the relics of rheumatism as results of some antecedent general condition of the blood common also to the choreic condition. It is very freely recognized that chorea is frequently in some way or other connected with that condition of the blood which obtains in what we call anæmia, or that existing in rheumatic constitutions. In both of these states we know that the fibrin of the blood is much in excess, and that this fibrin is very prone to be precipitated upon the heart's walls and valves. May not this hyperinosis be the explanation of the coincidence alluded to, namely, the occurrence of chorea in those affected with rheumatism?—DOCTOR J. W. SHAW, in *Dominion Medical Monthly*.

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AUSTRALIA AS A SUMMER RESORT.—The recent news from Australia, of the severity and fatality of the hot wave there, adds interest to the account given by Doctor Steele

Robertson in the *International Medical Magazine*:

I remember one awful summer about twenty years ago, when we had in Melbourne a north wind which ceased neither night nor day, and which lasted for seven days. The temperature was over 100° all the time. Suburban residents could not sleep in their houses, but lay out in the open air at night, on any vacant grassy space they could find. The natural accompaniments were epidemics of measles, scarlet fever, and typhoid fever. I sickened with measles myself, and on my way home from school, a few hours before taking to my bed, being under the influence of measles and in the ill-humor occasioned by it, I got into a fight with another boy, was "licked," and lost a good deal of blood. I was down for a week, and delirious most of the time. During my convalescence my daily entertainment was to sit at a front window and watch the funerals going by in what looked like one long procession. There were three gates in use at the Melbourne General Cemetery, and the funerals I saw were not going to the gate most used, but to the one second in importance. I remember wondering why the people who had died were all in such small coffins. Our kind old family doctor, on the day he said I might go out for the first time, told me I probably owed my absence from the funeral procession to the extensive bleeding my school-fellow administered to me. He also ordered me to thank that boy for the same the first time I met him. I did. Those funerals had taught me the value of the prompt surgical operation of bleeding.

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EPIDEMIC CEREBRO-SPINAL MENINGITIS.—In sixty to seventy per cent. of recorded cases of this malady in which the point has been investigated, Fraenkel's *Diplococcus lanceolatus* has been found. Jaeger investigated ten cases, and found that in two in which there was definite pus-formation the diplococci were present in enormous numbers; in those in which only fibrinous exudation existed, the micro-organisms were scantier. Unlike the gonococcus of Neisser, they were found inside the nucleus of the cells. From their difference in pathogenic properties, their long vitality in cultures, and the fact that they appeared in culture as oval forms, sometimes collected in chains divided in the long axis, he concludes that the micro-organism is not the pneumococcus. Jaeger proposes to call it the "*Diplococcus intracellularis*," and regards it as the true cause of epidemic cerebro-spinal meningitis, looking upon the presence of the pneumococcus as merely secondary, and as frequently obscuring the presence of the *Diplococcus intracellularis*.—*British Medical Journal*.

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CONJUNCTIVITIS DUE TO LARVÆ.—Baquis, of Leghorn, relates a case of acute conjunctivitis due to the larvæ of one of the Tachinariæ

(class Diptera) being deposited in the conjunctival sac. The patient, a mechanic in the naval dock-yards, was at his work in the morning when an insect flew into his eye and then off again. The organ became irritable, and, on this irritation increasing, a comrade examined and saw some grains of what he took to be sawdust. The eye was washed out, which afforded relief for a time; but by the evening the pain was very great, the lids swollen, and the conjunctiva greatly injected. On everting the lids Baquis found a number of little whitish bodies, the size of a fly's egg, which moved about rapidly. An attempt to remove them proved abortive until cocaine was instilled; the eye was then irrigated with perchloride of mercury (1 in 4000) and three-fourths-per-cent. sodium chloride. It was quite well on the third day. Microscopical examination of one of the larvæ showed it to be elliptical in form and made up of twelve metameres, each metamere provided with lateral setæ, of which there was also a median ventral series; its movements were vermicular. Nearly all the members of the family of Tachinariæ deposit their eggs on other creatures, principally caterpillars, where they develop into larvæ. Baquis has heard of two cases similar to his own.—*British Medical Journal*.

EXCRETION OF MERCURY THROUGH THE SWEAT-GLANDS.—The absence of positive information upon this subject led Mironovitch to make a series of experiments upon a number of patients to whom mercury was being administered. A Roman bath at 167° to 176° F. was used for twenty minutes to induce perspiration, and for control examination equal quantities of sweat and urine. The conclusion reached is that the elimination of the drug through the perspiration is much greater than has hitherto been supposed. A relatively larger quantity is excreted by the sweat than by the urine, but only in cases in which mercury was introduced into the system by friction a short time before. This is explained by the retention of the drug in the sudoriparous glands of the skin, friction causing it to be pushed into these glands before it has time to enter the blood. The quantity was the same in the sweat and urine of patients treated by injections.

The opinion is expressed that when it is necessary to relieve the economy of an excess of mercury, this can be effected through increased perspiration.—*Universal Medical Journal*.

GONORRHOEA IN WOMEN.—Physicians generally are not aware of the virulence of gonor-

rhœa in women. There is no disease more dreadful in its results, more difficult to overcome. It invades not only the vagina, but also the vulvo-vaginal glands, the urethra, the labial glands, the uterus, the Fallopian tubes, the ovaries, and the peritoneum. Its results are far-reaching, causing inflammation of all the organs attacked, the collection of pus in the tubes, pelvic abscess, sterility, and, unless cured, a life of suffering. Most pitiful of all, in many cases, is the fact that the victim is innocent; most shameful of all is the fact that many times the physician himself is to blame.—*Hot Springs Medical Journal*.

PREGNANCY AND EXOPHTHALMIC GOITRE.—I recently encountered a case in which exophthalmic goitre began with a pregnancy the symptoms ameliorating after delivery. I have every reason to believe the pregnancy was really the cause of the enlargement of the thyroid gland. Possibly the diminution in its size after parturition depended on some temporary condition in connection with the puerperium; but even so simple a cause as the necessary rest may explain the favorable change, which, after all, may not prove permanent.—SIGNIER, in *Repertoire Universel d'Obstetrique et de Gynécologie*.

A HORSE-LEECH IN LARYNX.—A soldier while drinking from a spring felt a pricking sensation near the hyoid bone. Hoarseness slight dyspnœa, moderate coughing, and spitting of blood followed. The presence of the leech could be ascertained by direct examination with or without the laryngoscope. Extraction by the natural passages was impossible, and spraying with a carbolic-acid solution, the administration of oil of turpentine, and intra-tracheal injections of salt-water proved useless.—M. LE DAMANY, in *Archiv de Médecine et de Pharmacie Militaires*.

SPINAL PATHOLOGY.—Irritation of the spinal cord increases secretion. Congestion of the lumbar plexus or of the cord will cause diabetes; a little lower down, diarrhœa. Congestion of the cervical plexus causes vomiting and palpitation.—*Medical Record*.

TAPEWORMS AND FLIES.—Grassi and Rovelli claim to have discovered that the house fly is the intermediate host of a species of tapeworm which does much harm among chickens. The fowl devour flies whose bodies contain the larvæ of the tænia.

The Medical Age.

VOL. XIV.

DETROIT, APRIL 10th, 1896.

No. 7.

Original Articles.

UNIQUE CASE OF TRAUMATIC ANEURYSM.

BY DR. CH. E. BAEZA.

In the latter part of October, 1894, an ex-sergeant of the Netherland Army, aged fifty-two years, who claimed his previous health had always been good, appeared before me exhibiting a large tumor developing to the left of the median line of the sternum. Syph-

left shoulder at once supervened, but was apparently dispelled by brief treatment. Shortly thereafter he began to experience a deep-seated feeling of pain in the back between the scapulæ. Gradually a circumscribed reddening of the skin became noticeable on the sternum, which little by little enlarged until it became a tumor, pulsating in all directions. Within three years this growth had attained a height of 3.7 inches, with a circumference

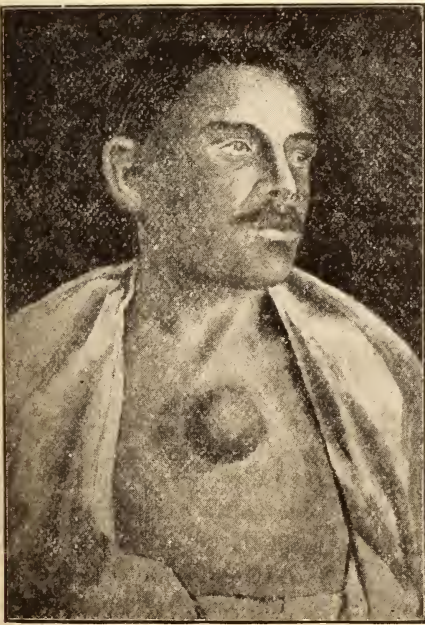


FIG. 1.

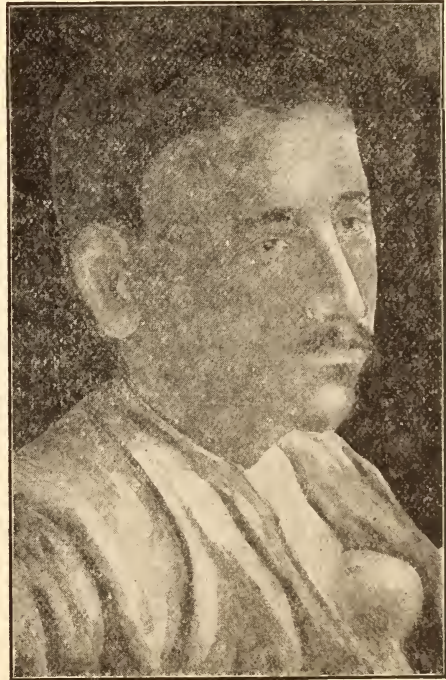


FIG. 2.

ilis was denied; alcoholic beverages employed in moderation; indulgence in tobacco (smoking) excessive.

In January, 1891, when the streets were covered with ice, he had slipped suddenly, falling forward and receiving a severe blow on the chest. Violent pain in the region of the

of eleven inches, having the form of a pointed cone, the apex exhibiting a very pronounced blue coloration of the skin.

This tumor had developed immediately beneath the skin—the subcutaneous cellular tissue was completely absorbed; its pulsations were plainly visible to the eye and

appeared synchronous with the pulse. The pulse in both radial arteries was normal, and the heart tones all clear. The patient suffered very little; he was even able to

who corroborated the diagnosis of aneurysm.

The accompanying illustrations from photographs show the development of the tumor. No. 1 was taken in March, 1893; No. 2, November, 1894; Nos. 3 and 4, November,



FIG. 3.

accomplish a journey from The Hague to Amsterdam, the tumor being meantime supported and repressed by means of a specially constructed truss. He was exhibited at the Polyclinic of Professor Pel in Amsterdam,



FIG. 4.

1895. The patient is still living (January 10th, 1896), enjoying as good health as could be expected, but of course with no hope of relief, surgical or otherwise.

The Hague, Netherlands.

LOCAL TREATMENT OF LARYNGEAL PHTHISIS.*

BY DOCTOR A. KUTTNER.

Of all the therapeutic problems that have confronted laryngology since it first began to assume dignity as a science, no one has clamored more pathetically for solution than that of a practical and successful treatment of laryngeal phthisis. It would almost seem as if laryngology, with all of its promises, is helpless in this direction, for all the methods thus far proposed have been received with misgiving and distrust. To be sure, some

very positive results have been offered—actual successes which cannot be disputed, and which are rendered indubitable by exhibition of anatomical preparations and by years of clinical experience; nevertheless a certain measure of doubt and suspicion still persists: there is yet a widespread, passive and stubborn resistance to the adoption of local methods of treatment. Such desperate nihilism is certainly a striking phenomenon in this over-confident age, and it may perhaps be well to state with precision the considerations upon which it rests, and to scrutinize their validity:

The first objection to local treatment is:

*Address delivered before the Hufeland Society.

usually urged through the query: What evidence is there that the same success (and perhaps even greater) would not accrue without *any* treatment; and is it not a well known fact that laryngeal phthisis may and does oftentimes completely recover when left to itself?—This objection is well calculated to develop a form of scientific fatalism and to paralyze every initiative. But how much truth does it embody?

Every one who has observed any considerable number of cases of laryngeal phthisis knows that in such patients superficial ulcerations will at times heal without remedial intervention. In this there is nothing wonderful. Why should not a tubercle here and there, seated directly under or even in the mucous membrane, which, after caseation of its centre, breaks down toward the surface, be gradually loosened and thrown off by the surrounding tissue? When such a spot, then, becomes separated from the invading necrotic masses, a cicatrix is finally formed, and there is nothing to prevent such a result; but unfortunately, in the great majority of cases these masses are not removed quickly or completely enough! Ere the removal is accomplished, from the centre of the diseased tissue germs have penetrated the neighboring tissues, and while the centre may cicatrize, all around are new tubercles, new infiltrations, and thus new ulcerations develop. To pass judgment, then, on the spontaneous cure of laryngeal phthisis, it is well to remember, first, that formerly, ere we were familiar with the present-day local methods, very competent pathologists—among them Orth, Eppinger, Egervicz—disputed the possibility of cicatrization in a tuberculous larynx. In the literature of this subject I have nowhere found a precise and detailed report of a spontaneous and permanent cure of laryngeal phthisis, and such would seem to be of too great interest to render its suppression probable. True, Schroetter claims to have witnessed isolated cases of spontaneous recovery, and Fraenkel and several others corroborate, but there is lacking any exhaustive statement as to the advanced stage of the disease or the permanency of the relief. Even Schroetter admits such recoveries are uncommonly rare; and I would add, so rare that they are insignificant in

their bearing upon therapeutic standards. If the asserted spontaneous cure of laryngeal phthisis is to have any influence on theories and modes of treatment, it must receive a very different confirmation from that which has been accorded it thus far.

A second objection to local treatment is that it is *per se* superfluous, since disease of the larynx only supervenes when the pulmonary affection is in an advanced stage and the patient consequently feeble and lacking in tone. But this is altogether untenable, for experience has shown that laryngeal disease may supervene in any stage of pulmonary affection, and that it may even appear as a primary affection. If, therefore, we refrain from remedial measures in those cases which already present severe symptoms of pulmonary phthisis, there is yet left a wide field in which the local treatment may be permitted to show what it is capable of accomplishing. A far greater difficulty confronts the practitioner in the fact that even if he succeeds in relieving the diseased organ, the economy at large is far from restored. One of my colleagues, when shown the preparation of a larynx in which the tubercular disease had been eradicated through surgical intervention, remarked: "Very nice! But what has become of the fortunate possessor of this restored larynx?" In this remark is found the essence of the situation.—A treatment laborious to both physician and patient; cure anything but certain; and even in the not too frequent cases where complete restoration is obtained, every day and every hour there is the haunting danger of reinfection from the tuberculous lung; and even if this last rock is avoided, the days of the patient are yet numbered, for the pulmonary phthisis is alone sufficient to complete the melancholy work!

These are not promising auspices, and I can readily understand the frequent inquiry as to whether it is really wise, under such circumstances, to essay radical intervention. I will reply to this, however, by calling attention to another disease in which surgical intervention for therapeutic purposes meets with general approbation under similar circumstances, viz., inoperable carcinoma of the pylorus; here radical operation is excluded, but the torments of the poor sufferer are so great that it is a blessed thing to mitigate

the pain if only to render the life of the victim worth prolonging. On such grounds gastro-enterostomy is performed, and, though the operation is indeed grave, its prognosis is favorable in the majority of cases, and its benefits, in my judgment, very far-reaching: the distressing symptoms are for the most part relieved at a stroke; the patient can again eat and drink; he regains a measure of his lost vigor; for months he may continue his occupation; in specially favorable cases life may be prolonged two years; and when death comes, the dying is at least made less sad and difficult to these poor victims. The conditions are very similar with laryngeal phthisis, but in one respect are more promising. Here, too, the fundamental trouble, the pulmonary phthisis, is not accessible to the knife, but in contradistinction to the preceding illustration, lung phthisis is curable and is often cured, amid favorable conditions.

All know how pitiable is the plight of those unfortunates in whom tuberculous disease of the lung is accompanied with phthisis of the larynx—long before the former has consumed the strength of the patient, the latter drives him from his calling. With one it is the hoarseness, with another the dyspnœa, which puts him on the sick-list; a third may be tormented by persisting paræsthesias—tickling, scratching, pressure, propensity to cough, and the constant use of narcotics thus enforced prematurely undermines the vitality of the patient; and to complete the picture, sooner or later must be added pain in swallowing, which finally renders it impossible to feed the patient.—Recently a poor wretch came to me who for three days had been unable to swallow a bite of bread or a drop of water. Now, in my judgment, the most serious thing that can happen to a phthisical patient is the development of some obstacle to his nourishment. So long as he can eat and drink, there is no need to resign all hope; but just as soon as the proper administration of food and drink is impeded, a rapid loss of energy commonly ensues. These are the cases in which the local treatment of laryngeal phthisis enjoys its principal triumphs. Its purpose is to mitigate the suffering of the patient and to restore the possibility of proper nourishment. These necessary prerequisites fulfilled, the physician may then

hope to conduct at least a part of his cases to a complete and permanent cure. That the methods at command are perfectly capable of fulfilling this task needs no special demonstration; I need only refer to the reports of Heryng, Krause, Moritz, Schmidt, Gougenheim, Bergengruen, Rosenberg, and others. To the favorable statistics of these authors I can add a goodly number, but in all my cases the laryngeal or pharyngeal disease was accompanied by a positive pulmonary affection. Diagnosis was based on unmistakable physical signs, and in no case was there a combination of syphilis and tuberculosis.

A case of laryngeal phthisis (diffuse infiltrations and formation of ulcer) was relieved after repeated curettage, and the cure has now persisted four and a half years. A second case, with rather circumscribed ulcerations was relieved by a single curettage after a month's vain treatment with lactic acid; this recovery has persisted four years. Another presented a severe form of laryngeal tuberculosis, which ceased to relapse after repeated curettage only when I supported the cutting instruments with the galvano-cautery; this patient has remained cured three years. The condition of the lung has so improved in the first and second cases that physical examination suggests a complete cure; their weight has increased fifteen to twenty pounds. In the second case, after the laryngeal disease was eradicated there was a standstill in the lung disease, and the patient gained about ten pounds in weight; but the physical sign over the lung never completely disappeared and recently a severe pneumonia has caused a material aggravation of the condition of the lungs, though the patient is now slowly recovering; but during the whole time the larynx remained well.

A case of ulcerating pharyngeal tuberculosis was relieved by repeated curettage, galvano-cautery, and lactic acid, with no relapse up to this writing (fifteen months). In two additional cases of laryngeal phthisis (infiltrations and slight formation of ulcer) relief was achieved by Schmidt's incisions and lactic acid inunctions, that has now lasted eight months. Although none of the cures are of long standing, the last three cases seem worthy of mention, as they are from the hard-laboring classes in whom the organs of

respiration are peculiarly exposed to frequent injury; two of them are metal-workers, one a tool-grinder. In all three, after cure of the larynx the state of the lung has materially improved and the weight has increased. In the case of the tool-grinder, who, for six months, has again been standing at his grindstone from seven o'clock in the morning until nine at night, the improvement does not seem to be very permanent: for two months his pulmonary trouble has grown worse, but the larynx is still intact and the patient is capable of working at his trade.

I will now proceed to give a short *expose* of the methods at command for the local treatment of laryngeal phthisis. There has been no dearth of suggestions and recommendations. Attempts to destroy the virulent germs at the seat of infection by the local application of antiseptics have been attended with very unsatisfactory results; I therefore remove all morbid tissue as completely as possible by surgical intervention. Carbolic acid, sublimate, balsam Peru, menthol, iodoform, etc., have been employed in solutions for inhalation and injection, or insufflated in powder form, and all answer a purpose to a limited extent; the ulcers (here inhalations are most efficacious) are cleansed from the unsightly, slimy, mucous coatings which form the very worst breeding-places for all kinds of germs; the local inflammation recedes; and the previously torpid ground of ulceration, responding to the stimulus of the medicament, soon assumes a different aspect, thanks to the spreading granulations. Frequently I have seen isolated tubercular ulcers heal under this treatment, but am sure that this is by no means due to direct destruction of the virulent germs, since the medicaments are not sufficiently concentrated for the purpose, and their local action is far too evanescent. The result is due far more to the removal of noxious substances which impede *vis medicatrix naturæ*, thus securing to the diseased tissue a stimulus which in mild cases suffices for cure. I would not forego the valuable help of these agents, and always employ this mild method of treatment ere resorting to radical measures. In cases where patients complain of dryness and a scratching sensation in the throat, menthol in oily solution answers usu-

ally an excellent purpose. I employ insufflations of powders only when pronounced secretion occurs in the larynx, since patients invariably assert that these exert a drying and irritating action. Always, also, before applying medicaments, I cleanse the disease focus by means of inhalations which dissolve mucus.

Failure of these agents is the signal for application of lactic acid, and the results accruing are usually quite apparent; but the application of this acid requires a certain amount of precision, since it must be rubbed into the diseased parts with some energy. It has a certain affinity for diseased tissue, with which it forms crusts, utterly ignoring all healthy tissue, and it has not only an antiseptic but as well a stimulant action which tends to bring about the desired result. Though this remedy is somewhat painful, most patients come to tolerate it quite rapidly, especially when they have learned to appreciate its value. Lactic acid is indicated for ulcerous processes, but is unsuited to the treatment of purely infiltrated tuberculosis, because it does not penetrate deeply enough through the unbroken epithelium. When this agent fails, surgical intervention must be resorted to, provided the general condition is such as to justify hope of success,—incisions, curettage, galvano-cautery, electrolysis, tracheotomy, laryngo-fissure, and finally resection of the larynx, have all been proposed. With high fever, advanced lung disease, or material loss of strength, every intervention must be abstained from save in so far as it is indicated vitally.

Surgical measures are proper when the physician is confronted with a hopeful general condition and a disease focus at least somewhat circumscribed, and in such the curette yields oftentimes good success; but it must be possible, as a preliminary condition, to perceive and remove everything *per vias naturales*. Carefully employed, I consider the galvano-cautery well fitted to aid and support the curette, but the operator should always cut off, rather than burn out, the larger pieces of morbid tissue; as it is more difficult in the larynx than in almost any other portion of the body to determine with accuracy whether one is operating altogether in healthy tissue, I have frequently

found it desirable to extend the ground of operation a bit and prolong the scab-formation. In my experience, also, the scars produced by the cautery are firmer than those following wounds of incision. Electrolytic treatment of the larynx is suitable only under very special conditions.

Aside from cases in which it is rendered urgently necessary by the danger of choking, tracheotomy has been accredited with good results, and it seems to me altogether intelligible that the rest obtained for the whole organ—a rest not disturbed after tracheotomy by phonation, by respired air, or by bronchial and pulmonary secretion—must affect favorably laryngeal phthisis.

The purpose of laryngo-fissure is the same as that of endo-laryngeal operations, viz., radical removal, as nearly as possible, of all morbid parts. As a laryngologist I shall certainly not be suspected of depreciating the advantages of an operation *per vias naturales* as compared with opening of the larynx; I am, furthermore, far from inclined to limit unduly the sphere of action which properly belongs to us, but must admit that laryngo-fissure is to be preferred to curettage in many instances—cases in which, as in diseases of the posterior wall, all morbid tissue cannot with absolute certainty be removed with the curette. On the basis of my successful results in the first case so treated, I performed this operation on three other patients, all of whom had undergone repeated curettage. It was the constant relapses and the growing insensibility to the action of cocaine that prompted me, finally, as the patients were vigorous adults with fairly good lungs, to have recourse to laryngo-fissure. Of these three patients, one died several weeks after the operation from an intercurrent pneumonia; both the others I was able to preserve to their families and their callings for over a year. Though shortly before death in both cases disease of the larynx recurred, I yet believe that laryngo-fissure may be attended with a good deal of success in more suitable cases.

There should be no place in the armamentarium for combating laryngeal tuberculosis by means of extirpation of the larynx; for either the cartilages forming the laryngeal scaffold are yet intact—in which case

laryngo-fissure suffices—or else the cartilaginous scaffold is already diseased and there is no prospect of success.

Great expectations were aroused at the outset by the new methods proposed, as already described; hence all the greater the subsequent reaction when repeated failures followed. Many a physician who had operated on ten, twenty, or even thirty cases without securing the promised or hoped-for improvement, lost courage and abjured the new methods altogether. The results of this laborious and often discouraging experience have not been brilliant, and it is now known that frequently there is not one among fifty patients suffering from laryngeal phthisis whom it will pay to make an effort to save. In hospitals, matters appear to be even worse, for I have never seen a single case in which I could have advised local treatment with any hope of noteworthy success; yet with all these patients there *was* a time when the disease was incipient, and when much might, perhaps, have been done for them. Pulmonary tuberculosis was long deemed incurable until physicians learned to detect and treat its earliest stage; and now, while laryngology is capable of detecting laryngeal phthisis at almost its very outset, it is nevertheless rare that one has an opportunity to treat a case in its first stage—lack of information, personal indolence unspurred by admonishing pains, and, above all, unfavorable pecuniary circumstances, are to blame if with all our ability and good will we so often arrive at the scene too late.

ÆTIOLOGY OF PEMPHIGUS NEONATORUM.*

BY DOCTOR WALDEMAR PETER.

The generic name Pemphigus comprises two groups of diseases which, regarded from both clinical and ætiological points of view should be separated. The first group is made up of the chronic forms—genuine pemphigus in the sense of Hebra's definition, common chronic pemphigus, and foliaceous pemphigus. In the second group should be placed acute pemphigus (commonly attended with fever

*Address delivered before the Verein für Wissenschaftliche Heilkunde, Königsberg.

and the benign pemphigus neonatorum. While there is nothing known with certainty respecting the ætiology of the first group, the acute febrile pemphigus, certain kindred species of multiform erythema, and other species merging into acute pemphigus, have shown themselves to be acute infectious diseases. Demme in 1886 demonstrated at the Congress of Internal Medicine a diplococcus in the vesicular secretion and in the blood, which he was inclined to believe the specific cause of the disease. Both Gust and Bleibtreu cultivated from the vesicular contents and blood the *Staphylococcus pyogenes aureus*; they were able to show, by means of colored preparations and pure cultures, the *Staphylococcus aureus* existent in the vesicles and blood of a patient at the Lassar clinic who was suffering from acute gangrenous pemphigus developed as a sequel to an intoxication from decayed venison. If, then, the acute pemphigus presented itself as a bacteritic inflammation of metastatic character, the ætiological nature of pemphigus in the new-born, commonly unaccompanied with fever, becomes less clear. Dohrn, who observed an epidemic of pemphigus neonatorum in the practice of a midwife, attributed it to mechanical injuries of the epidermis caused by clumsy handling during parturition, while Bohn assumed thermic irritation to be the cause of the formation of the vesicles.

Only within the recent past have observations been made which render probable a bacterial infection as the source of pemphigus neonatorum. Strelitz and Almquist were the first to cultivate the *Staphylococcus aureus* from the pemphigus vesicles, and to make positive inoculations. Trautenroth reports from Ahlfeld's clinic that pemphigoid vesicles formed in the neighborhood of the suppurating remnant of the umbilical cord, from which pure cultures of the *Staphylococcus aureus* could be obtained, as well as from the navel supuration.

With respect to the mode of action of the micro-organisms found, these authors, as well as the text-books of dermatology and pædiatrics, are unanimous in the view that they are conveyed from the air to the skin through the bathing water, sponges, etc., and penetrate its crevices. These pathogenic germs have not yet been found in the blood in

pemphigus neonatorum, nor have they been sought there.

Recently I observed a case which would seem to indicate that the infection of the skin in pemphigus neonatorum may be accomplished in the same manner as in acute pemphigus, namely, through the blood- and lymph-channels. I was called to the wife of a local baker, who seven days before had been delivered of a boy without medical assistance, and who presented the signs of a severe septic infection. As the woman had been nursing her infant for five days and the breasts were filled full, she was permitted to continue the nursing and spare herself the pain. After four days the child presented, without appreciable disturbance of its general health, a vesicular eruption: first on the face and breast, then on the whole body, vesicles formed, varying in size from that of a pea to that of a half-dollar, and filled with a yellow serous liquid. A bacteriological examination yielded with glycerin-agar pure cultures of *Staphylococcus pyogenes aureus* and a diplococcus; further, the *Staphylococcus pyogenes albus* was to be found only in scattered colonies. As it has been shown by the investigations of Bumm, Longard, Escherich, and others, that without local disease of the mammæ the pyogenic cause of puerperal sepsis may be conveyed through the milk, it was natural to regard the latter as the source of the child's infection. Disinfecting the nipple as carefully as possible, a specimen of the milk was placed on glycerin-agar. The result was a number of colonies, in which the golden yellow predominated, and the latter, judging by their appearance in the cultures and on the mounted slide, were identical with the *Staphylococcus pyogenes aureus*. In addition there were a lesser number of colonies of the *Staphylococcus pyogenes albus* and of the diplococcus also present in the contents of the vesicle; the latter was biologically very similar to the one described by Demme. Finally, the inoculations made on glycerin-agar in three successive days with the blood of the child yielded positive results, whereas control inoculations made in the same room and under the same conditions with blood from the tip of my own finger left the tubes sterile. In the blood there developed along the inoculating band or stretch, principally, the

diplococcus and the *Staphylococcus pyogenes albus*, whereas the *aureus* multiplied in but a few colonies.

The foregoing investigations accordingly reveal the same micro-organisms as provoke the development of acute febrile pemphigus. But it is not necessary to assume a specific virus to be the cause of acute pemphigus: it is probable that the most widely differing pathogenic organisms, circulating in the blood, after having metastatically reached the blood- and lymph-capillaries of the skin, may there provoke, under definite conditions, those exudation processes which are designated as pemphigus. At the same time it is not impossible that the superficial lymph-channels may also be attacked by the infecting virus, penetrating from the navel wound or from superficial foci of suppuration (even from intertriginous parts denuded of epidermis) into the lymph-vessels and lymph-spaces, here progressing after the manner of an erysipelas and provoking more local disease. On this latter mode of development is based the observation of Trautenroth, who witnessed vesicular eruptions in the neighborhood of suppurating navel wounds, as well as the frequent occurrence of pemphigus vesicles on the abdomen and the upper thighs of children suffering from intertrigo in the inguinal region; also the formation of vesicles in the neighborhood of the inoculating puncture in the experiments of Strelitz and Almqvist.

Koenigsberg, Prussia.

LITHÆMIA.

BY W. LATHROP, M.D.

Lithæmia, lithuria, uric-acid diathesis, lithiasis, and American gout, are, I believe, among the most common complaints of the day. I will take lithæmia, as covering the whole group, and will define it by stating it to be:

A complex of symptoms, subjective and objective, found to be associated with an abnormal amount of lithic (or uric) acid, which, appearing in the urine, is called lithuria, and the general resulting condition lithæmia. It is a frequent forerunner of gout, and if not checked is apt to end in contracted kidney.

It is a condition in which the products that go to form uric acid, instead of being ex-

creted, remain in great abundance in the blood. In regard to this condition, the oldest opinion is that of Sydenham, who claimed it was the result of certain nervous influences. Murchison attributed it to the liver; when the liver is inactive, oxydation takes place imperfectly, urea is not properly formed, and uric acid, which is produced in great quantities, accumulates in great abundance in the system. It is a well established fact that urea is formed in the liver, to be excreted by the kidneys. In acute yellow atrophy, where the proper structure is destroyed, urea ceases to be produced, and leucin and tyrosin are excreted. With deficient oxydation, albuminoid substances are disintegrated while the urea is improperly formed. The amount of uric acid excreted daily depends largely on the diet, ranging from seven to eight grains on a vegetable, to as high as thirty grains on an animal, diet.

Uric acid may occur in traces in the blood in health. Von Jaksch, after an examination of the blood of 109 individuals, found no trace in a healthy person, but it was present where anæmia coexisted with some gastrointestinal disorder. According to Haig, the amount in the blood rises and falls with the degree of alkalinity. Minkowski holds it is formed in the liver by the synthesis of ammonia and lactic acid. Gorrod claims that the kidneys are associated with its formation as well as excretion. Ebstein thinks it is produced chiefly in the muscles and bone-marrow. In the urine it occurs, chiefly, combined with ammonia and sodium, forming acid urates. Roberts believes that high acidity, poverty in mineral salts, low pigmentation, and high percentage of uric acid, are the chief causes of precipitation in the urine. And high acidity is doubtless the chief factor.

An excess of urates is not always pathological, but may sometimes be a safety valve; as when albuminoid matters are taken in excess of the power of the system to convert them, or when the oxygen of the blood is deficient from any cause, then urea is not formed, but uric acid and urates are abundantly excreted. Krauss maintains that with our present imperfect knowledge it is impossible to define accurately the pathology of the uric-acid diathesis.

Herter believes that the pathogenic rôle of

uric acid is greatly exaggerated. The true cause of this accumulation and imperfect excretion is primarily lack of exercise; and again, because people eat more than they can digest, the liver becomes clogged so that nitrogenous matters cannot be gotten rid of; the income is too great for the outgo, and we have accumulation and a morbid product. All large eaters are apt to become lithæmic. The consumption of alcohol is a potent factor. The diathesis may be inherited: we see lithæmic children where lithæmic nervousness has been inherited. Da Costa states that Galton found that out of 80,000 school children, 14,000 were developing marked nervous symptoms, and he believes that inherited lithæmia is a cause of much of the trouble.

As to symptoms, the following description is fairly typical of the trouble, and renders a diagnosis comparatively easy:

A person, usually about thirty years of age or upwards, complains that, while not ill, he seldom feels entirely well; he is dyspeptic; appetite variable, and, while he may enjoy food, after eating he experiences discomfort; complains of acid eructations, gaseous distention, heartburn, and at times a bad taste in the mouth; is apt to be constipated; may have hæmorrhoids, or intense itching of the anus; sometimes there is eczema, especially about the genitals; mental inertia and drowsiness are common; he is irritable and peevish, has periods of despondency, and trifles seem matters of great importance; headache is a symptom, often vertigo; neuralgic attacks are common, especially the intercostal type; there is a general sense of weariness; the tongue is usually coated; skin muddy, and frequently the seat of a papular eruption; liver usually somewhat enlarged and tender; pulse usually hard and tense.

Urine is apt to be high-colored and scanty, though often increased; the specific gravity about normal, though sometimes high; reaction acid, and on standing a reddish or pink deposit of uric acid is thrown down. The bladder is often irritated by the urine it contains, and there is a sense of weight and pain about the kidneys. Albumen is sometimes found, but not as a rule, and is due to mechanical irritation.

Another condition often found in lithæmia is, association of the dyspepsia with cardiac

palpitation and insomnia. Sometimes cramps attack the lower extremities, and often patients imagine they have spinal trouble.

Da Costa states that one of the most significant signs of lithæmic blood is the mental state: The gloom is great, the melancholy keen and seemingly more so after a heavy meal—and during the slow digestion of food it is intense. Some cases, with high specific gravity of urine, and with albumen, simulate Bright's disease.

In distinguishing lithæmia from true gout, note the fact that there is seldom any joint-affection in the former, though now and then there is arthritic trouble, and it is this joint-affection that as a rule makes the distinction possible. Now and then a case presents all the symptoms of lithæmia—nervous depression, vertigo, migraine, neuralgia, and imperfect digestion,—but does not present the urine of lithæmia, no abundance of uric acid, or even of oxalates, and not any excess of urea. Would this be called lithæmia? Undoubtedly it should be, and for these reasons: Lithæmia is not *simply* uric-acid formation, but general disintegration of tissue, and other products similar to those of uric acid (such as peptones, acetone, etc.) may accumulate in the blood, and changes follow that are not yet fully understood, but which for want of better knowledge can be well called lithæmic signs. We have no accurate chemical tests for the quantity of uric acid found in blood and urine, though Haig has estimated the proportion of uric acid to urea in health as 1 to 33.

Now in regard to prognosis: The disease is rather remarkable, for it is possible to apparently pull people from the grave; and it is only demanded that we have a distinct idea as to the nature of the trouble. The digestive disturbances are the chief features, and when these are overcome it may be said in a general way that relief is assured.

The first thing to consider is the diet, but there is no rule applicable to all cases. As uric acid is derived chiefly from the nitrogenous elements of food, it would seem to be the indication to stop these as far as possible; but this is not so easy as it seems. Digestion must be perfected, as defective metabolism causes more trouble than a certain element of food. With most persons, lean

meat is more easily digested and assimilated than starchy, fatty or saccharine foods, as with the latter group, if digestion be slow, fermentation takes place, and the resulting acids being taken into the blood derange the nutrition. A diet of albuminous material, with plenty of green vegetables, will be more easily digested and cause much less trouble; especially is this true where the symptoms develop some time after the meal, giving rise to flatulence, headache, and drowsiness, and show that intestinal indigestion is present and fermentation taking place in the intestinal canal. Where the trouble develops immediately after eating, and shows the stomach at fault, the animal food which makes most demand on the stomach must be restricted. Frequently a middle course must be taken, and such foods as sweetbread, white meat of fowls, and fish may be allowed, while the heavier meats are discarded. Rich, fatty foods, pastry, etc., must be excluded entirely, and stimulants of all kinds avoided.

In the medical treatment, two classes must be recognized: One where gastric and hepatic derangement is marked, with nervous symptoms; the patient as a rule is a heavy feeder, of plethoric habit, and leads a sedentary life: Next, those who in addition have dyspeptic symptoms, and evidences of nervousness; these are usually small eaters, even when well, and under lithæmic influence take but very little food; they are anæmic, weak, and have various nervous troubles, such as insomnia, vertigo, headache, melancholia, etc.

In the first class of cases the salines are extremely useful at the outset, but should only be given in dose sufficient to produce two or three loose watery movements. It is usually advisable to stimulate the liver moderately by means of mercurials or podophyllin, but I believe the mineral acids to be the best by far, and, chief amongst all, nitromuriatic. Accompanying or following this treatment, the alkaline or mineral waters are very useful. Where the mineral water cannot be conveniently obtained, excellent results are derived by using a simple solution of a carbonate. A favorite plan of Doctor A. H. Smith is to give a teaspoonful of bicarbonate of sodium in a glass of water at bedtime, and he claims remarkable results in some cases where headache and general *malaise* were

present. The use of alkalies should be kept up for some time, and the urine allowed to be but slightly acid.

In cases belonging to the nervous class, no salines should be employed, and only mild laxatives given; but mineral or alkaline waters may be pushed to the full extent. It is in these cases that the dilute nitric acid is of great benefit, and it should be given in doses of ten to twenty drops before each meal; it is well borne when combined with a bitter tonic, such as compound tincture of gentian. Haig is a great advocate of sodium phosphate, especially where there is much mental depression. Colchicum was long used on its eliminative reputation, but is only of value where the kidneys are unable to throw off the excess of acid, owing to exposure to cold, or alcoholic excesses; it is also apt to irritate the stomach, and will frequently aggravate the gastric symptoms. Lavage has been advocated highly in cases exhibiting severe palpitation and obstinate insomnia and is said to act promptly where the cardiac remedies and bromides have utterly failed. My own experience has led me to have the greatest faith in, and the best results from carbonate of lithia, five grains being given in a glass of water before each meal. Next to this, I believe the mineral acids to be very valuable. As lithuria is a condition of imperfect oxydation, it follows that exercise is the *sine qua non* for plethoric persons; the more they live in the open air, the better. On the other hand, in cases that suffer from nervous derangement, and where the tendency is toward neurasthenia, rest of body and mind is essential, and while fresh air is desirable, it must be taken with the least demand on strength. In this class of cases the inhalation of oxygen will produce valuable results; this will of necessity produce more urea and less uric acid in the blood.

My excuse for writing on this subject is that I have had a good many cases of lithæmia and have been struck with the readiness with which it can be relieved when once the diagnosis is made and the directions followed. I believe a large number of the patients who consult their physicians for "dyspepsia," "indigestion," etc., are in reality suffering from lithæmia, and that this can be demonstrated by careful examination, and relieved

or cured by treatment directed towards eliminating the uric acid.

I will close by quoting the paragraph in Da Costa's essay, taken from Maxwell's Life of Charles V., showing how lithæmia and gout developed in the great Emperor, and also how much a man can eat:

Roger Ascham, standing hard by the imperial table at the feast of Golden Fleece, watched with wonder the Emperor's progress through sod beef, roast mutton, and baked hare, after which he fed well of a capon, drinking also the best I ever saw. He had his head in the glass five minutes as long as any of them, and never drank less than a good quart of Rhenish wine. The fullness and frequency of the meals which occurred between his spiced milk in the morning and his heavy supper at night so amazed an envoy of Venice that he thought them worthy of special notice in his despatch to the senate. There was a constant demand for eels, anchovies, tunny trout, and olives. He was fond of pickled partridges and sausages, omelettes of sardines and beer, venison, fruit, and preserves. His chamberlain goes on to state that "Long trains of mules came laden, as it were, with gout and bile."

Miner's Mills, Pennsylvania.

SWEETS FOR THE SWEET.

BY E. B. WARD, M.D.

'Tis sweet to practice physic in
These happy halcyon days,
With leucocytes and neophytes
And X cathodal rays,
When all your signs and symptoms are
Provided fresh at hand,
And then a slug for every bug
That travels in the land.

It seems so nice to know it
And feel your mighty power,
To stop disease just when you please
At any given hour
By chaste inoculation of
Most virulent degree,
Containing cytes to kill the mites,
And set the system free.

And then your pills and tablets are
Provided for each case,
To beat and bribe the microbe tribe!
Or, give the *coup de grace*
To wandering bacilli who
Are prone to multiply,
And furnish fun for every one
Who wants to see them die.

With everything so handy like,
Just suited to each ail,
That any man can find a can
Of wind to fill his sail

As an arrant germicidist—

Disease all comes from germs,—
And prove his skill has filled the bill
On all that he affirms.

It's just like finding money, to
Get paid for service when
The whole thing through is furnished you
By greater, wiser men,
Who make a diagnosis and
A straight prognosis too,
And furnish drugs to kill the bugs,
And pull the patient thro'.

Great men across the ocean wave
Sit there and think for us,
Saving all wear and mental tear,
And fret and fume and fuss.
And tho' their mental calibre
May be of trifling bore,
Their shots sent here sound loud and clear
As cannon's opening roar.

Yes; we owe to germs and Germans
Most all our wit and ken,
Except what comes from out the looms
Of Paris and Vienn.
And tho' like Pasteur's rabic schneid
Some go with their petards,
Still on the whole they have the soul
Of most of our regards.

These men we love to imitate,
And mouth their vaporings
As wisdom deep and hard to keep
By plebeian men and things;
And if we're spared our precious lives
Made by them so complete,
We'll sound their praise in divers ways,
For sweets deserve the sweet.

Laingsburg, Mich.

SHOULD WE QUARANTINE?

BY W. STUART LEECH, M.D.

Scarlet fever made its appearance in a family one mile from the town in which I reside, contracted from a neighboring township where the authorities were lax in enforcing ordinary quarantine laws. Being the attending physician in the case above mentioned, I immediately notified the clerk of the township and succeeded in keeping the family quarantined for forty-odd days. Eight members of the family were stricken down, but there was no spreading of the disease from this source. Another case appeared in the town of Brootten, acquired by a lad while visiting in the same neglected adjoining township. Quarantine being at once established and enforced, no one outside of the

family contracted the malady. A little girl of the family in the next flat visited our same neighboring township, and returned with the measles. I notified the town recorder, arranged the placard, and as physician and member of the Health Board ordered the house placarded and family strictly quarantined. The reply I received was that it was only measles, and that wouldn't amount to much. In a few days my only (three years old) son, who had just recovered from pertussis, was playing with another small boy when the mother of the neighbor's boy opened the door and sent the two in to visit the girl with measles, and to get the measles themselves, "as all little boys must have measles while young."—I now began to realize that some of the laity, in their own eyes, knew more about medical matters than the members of the medical profession.

In six weeks' time there have come under my observation sixty-odd cases of measles, all from the one. My own boy contracted it, and as a result died of a lingering bronchopneumonia, suffering, for a child, torture beyond conception. Out of the sixty cases of measles, four were complicated with pneumonia, fifty-six with bronchitis, and fifty were left with some aural trouble.

Laying aside the great amount of suffering and the time lost by patients and attendants, this failure to quarantine cost the people of this vicinity seventy visits from their physician, about eighty bottles of medicine, two deaths indirectly, and several cases of anæmia to treat.

In the face of such facts will any sane man doubt the necessity of quarantining?

Brooten, Minnesota.

Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

THE WOODBRIDGE TREATMENT.

Editor MEDICAL AGE:

This breaking forth of light in the treatment of typhoid fever gives me inexpressible satisfaction, because it confirms the faith and practice of my life. To my father's instruction I was first indebted for the truth that "Mercury in some form is the only drug which has any real control of typhoid fever."

Forty-five years ago this great truth was presented to the North Middlesex District Medical Society—a branch of the Massachusetts Medical—by my older brother, Doctor Walter Kidder, along with a series of cases the average duration of which was about twelve days but his report was received with ridicule and contumely. Bigotry, in a sneering way declared the author of the paper did not know what typhoid fever was; that typhoid fever must *always* last three weeks, and therefore there could be nothing more absurd than to claim it could be cut short in ten or twelve days. Had not Jacob Bigelow and John Ware said it could not be limited by anything a physician might do; and was it not presumption to profess to know more than they? Verily the Sanhedrim before whom was summoned the man who was born blind, was no more intolerant of truth.

The medical journals of those days either would not admit such claims for publication or, if they did, were careful to "pack them in ice." New England in all her medical history has been the Mecca of bigots, and rejoice that the free air of the West begot more toleration. I see in the first lines of Doctor Woodbridge's address that he anticipated this same spirit of persecution which pursued Jenner, Harvey, and all others who dared to question "the existing faith;" but especially rejoice in the prospect of his ultimate success in establishing the claim of mercury as the abortive of typhoid fever. He admits the great *sine qua non* is calomel, which I have always maintained. Although I have no desire to discredit guaiacal or eucalyptic both are relatively new remedies whose capabilities I have not proved as I have those of mercury.

I have no desire or intent to in any degree take from Doctor Woodbridge the credit that is his due, but rather to bring forward evidence to substantiate his claim; therefore call attention to the fact that in the early history of typhoid fever in New England there was a prevalent conviction that the disease could be arrested—in the language of the day, "broken up." There was one remedy which was relied upon for this purpose, viz. *calomel*; but an unfortunate theory ruled its employment—that no good could be derived therefrom unless a mercurial disease was introduced in the economy; the gums must "be touched." The result was that not only was the fever "broken up," but the patient likewise; often what was left was not worth saving. The time came when the common people, seeing the mercurial wrecks about them, revolted and refused to take this drug or employ a physician who used it.

At infrequent intervals, since these early days, allusions have been made to the usefulness of a few doses of calomel in the outset of typhoid fever, rendering it more mild and tractable, but no one except Doctor Woodbridge has organized an army to fight the typhoid bacillus with effective ammunition. God speed him in his great and good work! If you were to ask me if I approve of the use of calomel in fever, I should say: No, not if I know of a safer preparation of mercury that will do the work. I have always had a wholesome horror of "touching the gums" with small doses of calomel.

Although under the instruction of Jacob Bigelow and John Ware, I never adopted their theory, as I had seen better results accrue so promptly and persistently administering a mercurial laxative until all pyretic symptoms had disappeared. The average duration of fever under this treatment during eighteen years (for three of which I was city physician) was eleven days, with a total loss of two; never a case of relapse; never two cases at or about the same time in the same house, in all this experience. One of the two fatal cases was a third attack—patient having had the disease eighteen and six years before.

Very truly yours,

MOSES W. KIDDER.

Lincoln, Mass.

DIPHTHERIA.

Editor MEDICAL AGE:

A lad of twelve years was at school on Friday, February 14th, and felt well until evening, when he became very feverish, vomited repeatedly, and complained of general *malaise* and sore throat. I saw him the following morning; temperature 103°; pulse 114; face highly flushed; prostration marked; tonsils swollen, tender, covered with a thin gray-white membrane extending upward over the arch of the palate and anterior pillar of right fauces. The case was at once reported to the Health Department as diphtheria. An injection was now given of five cubic centimeters of Parke, Davis & Co.'s diphtheria antitoxin (1000 units), and a spray of hydrogen dioxide, lime-water and Euthymol ordered every hour. At 5 P.M., the membrane extended quite across the arch of the palate and forward over the pillars of the fauces on both sides, and there was a considerable adenopathy at the right inferior maxillary angle. The temperature now was 101°, pulse 100; boy felt better and brighter.

February 16th (next day) I found that he had rested well during the night; was bright and cheerful and appeared like another boy;

examination revealed a still further extension of the false membrane, which now invaded the nares, extending forward, on the left side, to the meatus; from the nostrils a serous, ichorous discharge proceeded; the gland at angle of jaw had become quite prominent, but the temperature was only 99° and pulse 102. A second injection was then made of ten cubic centimeters of the 600 antitoxin, and the same spray continued for throat and nose.

February 17th—seventy two hours after the initial symptoms of the disease, and forty-eight hours after the first injection—the temperature was normal, pulse 84; patient was with difficulty restrained from leaving bed, feeling, as he expressed it, "perfectly well." There was no return of fever, and though no further medication was employed the nostrils and throat gradually cleared up; the glandular enlargement quite disappeared in a few days, and at the end of a week the case was reported as well, though isolation was kept up for two weeks longer.

Yours very truly,

ANDREW W. IMRIE.

Detroit, Mich.

DIPHTHERIA.

Editor MEDICAL AGE:

A lad, aged eleven, went out into the country on February 28th, 1896. Saturday, February 29th, he got his feet wet and chilled; Sunday he complained of sore throat. Monday afternoon I was called, and found both tonsils and pharynx covered with a thick coating of membrane; tongue heavily coated; breath very foetid; temperature 102°; pulse 102; cervical and parotid glands moderately involved. Ordered patient returned to town in order to be more convenient, and also to get him away from a family of six children. The same night, at 11.30, I administered ten cubic centimeters of Parke, Davis & Co.'s antitoxin (1000 units); temperature at the time 102°, pulse 108.

Tuesday 9 A.M.: Child's condition about the same; prostration somewhat more marked; temperature 102°; pulse 110 and little weaker. Seven P.M., condition same as in morning; had taken some milk; would not take any liquor; temperature 101.6°; pulse 104.

Wednesday, 10 A.M.: Had passed a very restless night; temperature 101.4°; pulse 104, rather weaker and more threatening than previous night; membrane thickly covered the tonsils and pharynx; several attacks of epistaxis. I now administered a second dose of ten cubic centimeters (1000 units) of antitoxin. Was hurriedly sent for at 6.30 P.M.;

child had just coughed up a piece of membrane larger than a fifty-cent piece; yet the parents declared he felt better and had rested easier since my last visit than at any time before; temperature 99°; pulse 95.

Thursday, 9 A.M.: Had a very good night; slept some and took some nourishment; towards morning spat up another piece of membrane; temperature 98.6°; pulse 95 and stronger. At 7 P.M., membrane had almost disappeared from throat; pulse 90; temperature 98.4°; tongue somewhat cleaner; had taken considerable nourishment, and was sitting up in chair beside stove, reading, but I immediately ordered him to bed.

Friday, 7 P.M.: Temperature 98.6°; pulse 95; a small patch of fresh membrane on left tonsil; during day had complained of some pain in throat.

Saturday, 10 A.M.: Temperature 99°; pulse 100; patch of membrane on throat a little larger; had a rather restless night.

Sunday, 9 A.M.: Pulse 95; temperature 98.6°; amount of membrane somewhat lessened; felt some better.

Monday, 9 A.M.: Throat nearly cleared; pulse 84; temperature 97.4°.

Tuesday, 7 P.M.: Pulse 72; temperature 98°; appetite returning, and patient feeling very well.

This case required a double dose of anti-toxin, and though it was not so acute, nor the amount of glandular trouble nearly so great, as one or two cases in which I found one dose sufficient, still it was persistent. The child had a slight relapse after getting up, which retarded recovery somewhat.

Another case I might make mention of here: A girl of eleven years had been ill with sore throat three days. When seen, February 23d, 1896, the uvula, tonsils and pharynx were almost completely covered with membrane and very much swollen; tongue thickly coated; temperature 101.8°, pulse 110, with a great deal of prostration. I administered ten cubic centimeters (1000 units) of anti-toxin. This girl's parents lived ten miles out in the country, and as I happened to be very busy I did not see her for a week, although hearing from her every day. At my second visit she was sitting up, pulse and temperature normal, and throat perfectly clean.

In these cases I used a gargle of sulphurous acid, one part in three, and administered internally medium-sized doses of nux vomica, with an occasional dose of calomel to keep bowels regular. When convalescence is commenced I prescribe iron.

Yours very truly,

R. D. ALWAY.

Graceville, Minnesota.

THE MEDICAL AGE.

A SEPI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., APRIL 10th, 1896.

Editorial.

RELATIONS OF MIND AND BODY.

At a recent meeting of the Victoria Institute (Philosophical Society of Great Britain) Doctor Schofield introduced the subject of the relations of mind and body, or "the powers of the unconscious mind." He pointed out that the *ego*, or "permanent nexus" of Herbert Spencer, holds a great deal more than "states of consciousness" together; that although all writers on psychology limit mind to consciousness, its true scope is far wider—"A coral island of the Pacific is but the visible summit of a vast submerged mountain, and so the mind of which we are conscious is but the visible part of a vast structure."

In an interesting way Doctor Schofield developed the idea and proofs of a sub-conscious mind, showing its selective power "like the action of a private secretary opening all letters and placing a few before his chief;" its automatic powers, as in solving a problem when "the unconscious mind delivers the result at the doors of consciousness just like a prepaid parcel." Not only however, is there sub-consciousness, but "likewise what may be termed supra-consciousness." The whole region in which consciousness dwells is largely unconscious; and "thus consciousness, like the visible part of the spectrum, occupies the middle ground while the mind as a whole reaches all the way"—it energizes every body-cell, all whose active life it originates.

"A sane man is one in whom the conscious mind rules; an insane man is one in whom

he conscious mind is overpowered by some parts of the sub-conscious."—A very clever definition, indeed.

Doctor Schofield explained the phenomena of hypnotism and dwelt at some length on the powers for evil and good of the unconscious mind over the body. He further showed the great bearing this has on therapeutics; and taking up hysteria, he specially pointed out in detail the history of its phenomena and the steps for its rational relief. He concluded by referring to the *modus operandi* of faith-healing, quack remedies, *et hoc genus omne*, and appealing to the medical profession and to scientific men generally in respect to such researches.

The discussion which followed was no less interesting than the paper itself.

MORAL CENSORS.

It would appear as if every civilized community on this broad continent of ours was in want of something of this sort. To-day it is not safe to admit any daily paper into a respectable family, especially where there are children. Recently the daily press in certain cities has widely disseminated the most disgusting and filthy details of certain trials, pausing at nothing save absolute obscenity of expression, which reservations, considering the context, were altogether wasted.

Recently Doctor Beattie Nesbitt, in the *Dominion Medical Monthly*, gave his readers a dissertation upon "Moral Censors," that is worthy of perpetuation. He says:

The lay press, more especially the daily, assume the position of moral censors to the people, and seek to lead their steps in the straight and narrow path of press opinion. While no one is foolish enough to attempt to overlook the great and undoubted good that the press of this country have done in the interest of social and moral reform, yet there is one point in particular in which it is necessary to suggest that they "take the mote out of their own eye" before undertaking to "remove the beam" out of the eyes of others.

We have in every city a department devoted solely to the suppression of vice in all forms, the suppression of evils real or imaginary, with a preference for the latter. The primary efforts of this institution are directed to the suppression of prostitution—female, of course. The lords of creation, in providing police departments, seldom make any arrangements for interfering with their own doubtful pleasures. In all forms of wicked-

ness and in all forms of vice, the great moral maxim of the nineteenth century is, "Thou must not be found out," and in order that the women and girls of our country may partake of pleasures, at least illegitimate, without breaking this great moral maxim, we find the papers advertising that "women in doubt" should use pennyroyal wafers.

How a publication that pretends to be decent, clean, and fit to be brought into the homes of the people, should continue to parade before wives and daughters a select series of abortifacients, is something that surpasseth the knowledge of a physician. Most nostrums of this kind seldom contain more than a laxative, and are entirely useless for the special purpose for which they are advertised; but they are none the less damnable, because of their suggestiveness and for the reason that a girl or woman, after having gone the rounds of tansy pills and pennyroyal wafers, speedily resorts to the hair-pin or the elastic catheter. It seems disgraceful that papers should be allowed to publish such advertisements, and we are sure it only needs that the attention of the proprietors of these papers be drawn to the class of advertisements that are being received to make them close their columns to them. Strange to say, in this respect the religious papers are often the greatest sinners. As we said before, the lords of creation are not so well provided for in the police department, but we find that the daily newspapers meet this long-felt want with a select line from "Ricord's Specific" to Big G. We will conclude by expressing the desire that this class of advertisements will disappear once and for all from the columns of our daily press, and from all other papers that go into the homes of the people of Canada, because no man who has any feeling of respect for his wife and daughters would have them for one moment contaminated by reading such damnable stuff.

The day is rapidly approaching when all respectable people will demand a censorship of the newspaper press. License is very far from being liberty.

PSYCHOLOGY VS. PHYSIOLOGY.

The question of the relation of psychology to physiology, and of the line of demarcation between the two sciences, is discussed by Professor G. S. Fullerton in the *Psychological Review* for January. Psychologists are often charged with occupying themselves in doing work which is purely physiological, and they retort by stating that most text-books of physiology include matter which belongs to psychology. The fundamental assumption of psychology is, to state Professor Fullerton's argument, the assumption of an exter-

nal physical world, and of minds which mirror it. It is the task of the psychologist, with the aid of introspection, observation, and experiment, to obtain a knowledge of such minds, and to reduce their phenomena to laws. Though little is known about the changes in a nerve during the passage of a nervous impulse, the methods employed in investigating physical and chemical problems may be expected to throw some light upon them. On the other hand, argues Fullerton, psychical facts—such as sensations, perceptions, volitions—have also to be reckoned with, and one would hardly expect to study them just as the changes in a muscle during contraction are studied. Therefore he thinks that while the task of the physiologist is to investigate, by direct objective methods, the physical series of causes and effects, the psychologist studies facts of another order by the method of introspection, observation and experiment, and interpretation.

HERNIA FAMILIES.

In the January 25th issue of the *British Medical Journal*, Doctor Havell furnishes the interesting genealogy of a family in which a number of children were ruptured who had descended from a grandmother thus affected, through a father who was not ruptured. It seems that out of four sons and four daughters, one of the former and three of the latter suffered with hernia.

Commenting on the foregoing, Doctor J. Macready remarks that when a large number of these family histories are collected and summarized, the ruptured girls are a little less than half the number of boys, whereas among the ruptured generally the females are only one-sixth of the males; so that the proportion of the ruptured female children descending from a ruptured grandmother is much increased, though not to the inordinate degree that would appear from Doctor Havell's genealogy.

In a similar way the effect of the taint in the grandmother is bound to display itself in the grandchildren with an unusual tendency to femoral rupture, and this also is seen in Doctor Havell's family, where two and probably three of the girls had femoral hernia.

We personally recall cases of femoral hernia

in two males, only children of a mother who was thus ruptured, and whose maternal grandparent also suffered in like manner.

THE INTRODUCTION OF ANÆSTHESIA.

In a recent issue of the *Philadelphia Medical and Surgical Reporter*, Doctor George Foy, of Dublin, Ireland, gives some very interesting information regarding the genesis of anæsthesia. In looking up the subject, Doctor Foy finds that the claims of Doctor Beddoes, of Bristol, and Doctor Richard Pearson, of Birmingham (England), do not receive the consideration that is their just due. He remarks:

Prior to the time that Mr. (afterwards Sir) Humphrey Davy came to assist Doctor Thomas Beddoes in the Hotwells Pneumatic Hospital, the latter was familiar with the anæsthetic effects of nitrous oxide gas, and had given inhalations of it to Mrs. Beddoes, and to Coleridge the poet. Knowing its pain-killing effects, he advised Mr. Davy to inhale it to stay the pain of a toothache—at this time inhalations of narcotics for toothache were the commonest of remedies, and numerous formulæ for henbane and other drugs of this class to be used in this manner are to be found in Saxon's leechdoms. Davy's friends properly claim that he suggested the use of gas by inhalation in surgery, which may be granted; but the extension of the use of factitious airs to surgery was not much for an assistant in Hotwells Hospital, where they were being used for every form of disease and sore. The great fact that factitious airs could be inhaled with safety, and that they could be used as medicinal agents, is of Doctor Beddoes' demonstration.

Etherization is first, so far as I can discover, recommended by Doctor Richard Pearson in a letter written to Doctor Beddoes from Birmingham, which bears the date of the 2d of February, 1795. He writes: "In my little publication I can scarcely call anything my own but the observations on the vapor of ether, the probable use of which in phthisical cases your consideration on factitious airs first gave me the idea of. As the number of consumptive persons in this large manufacturing town is deplorably great, I have had frequent opportunities of trying the inhalation of ether in such cases, and I have the satisfaction to say I found it very beneficial."

UNPARDONABLE CARELESSNESS.

Recently in a large Eastern hospital, during the administration of an anæsthetic, the ether took fire, causing several disagreeable burns, both to the patient and operators.

The necessity for keeping artificial lights out of an operating-room, and due avoidance of ether in all operations where the thermo- or electro-cautery is required, needs no special demonstration. We recall the fact that a quarter of a century since in another Eastern hospital a patient's death was caused owing to a somewhat similar accident, though the demise was set down in the records as from "bronchitis:" the patient had been anæsthetized with ether for the removal of cancer of the tongue, after which the wound was seared with the iron cautery, and the respiratory gases laden with ether caught fire and induced the so-called bronchitis.

LEGAL LIEN FOR MEDICAL SERVICES.

Recently was introduced into the Mississippi Senate, a bill proposing that every legal practitioner of medicine should have a lien and privilege for medical services on the crop or wages of the person served.

It is a notorious fact that the doctor's bill is always the last one to be paid, and even then is seldom liquidated without protest or material discount, while other bills are paid in full; especially is this the case after the death of a patient who is the head of a family or the responsible member thereof. We doubt the applicability, however, of such a bill as just proposed, and would suggest as a far better measure a law which obtains—or formerly obtained—in Canada, which requires that the physician's account shall be settled first of all after the death of the person served. The Mississippi law would seem to be highly impracticable, and it might work in a very retaliatory way upon a doctor's family.

A NEW SURGICAL DRESSING.

Doctor Kane, in the *Atlantic Medical Weekly*, suggests the use of asbestos wool as a new surgical dressing; he claims "it is soft, non-irritating, possessed of absorbent qualities superior to cotton, and has the great advantage of sterilization without elaborate apparatus." Doctor Kane carries this wool in his surgical case, and sterilizes at the time of operation by throwing into a fire and allowing it to attain a cherry color by the heat

of the coals. He, moreover, employs the same dressing repeatedly, by using this same method of sterilization; and if all is true that he claims for asbestos, it certainly should supersede every other form of surgical dressing.

PUS IN URINE.

A paragraph is going the rounds of the medical press to the effect that a test-tube partially filled with urine, to which has been added a few minims of tincture guaiac, shows, on being heated to a temperature of 100° F., a pale blue color that is always indicative of the presence of pus.

This test is by no means new—indeed, is as old as the oldest of us—and is most convenient, but unfortunately not always reliable. Not infrequently the reaction fails to materialize when pus in considerable quantities is easily determined by the microscope or other tests.

ASTIGMIA VERSUS ASTIGMATISM.

In the *Annales d'Oculistique* Doctor Georges Martin suggests the substitution of the word *astigmia* for the commonly employed *astigmatism*. The former is shorter, more convenient, and finally—a more important reason—etymologically correct.

From the point of view of accurate derivation, there is no doubt of the justice of Doctor Martin's conclusion.

EDITORIAL NOTES.

Doctor Jekyll and Mr. Hyde.—

Robert Louis Stevenson declared this story had for its foundation an incident related to him by a London doctor who made diseases of the brain a specialty. None of Stevenson's work was absolute fiction, and most of it had a basis in actual experience. "I do not believe," he said, "that any man ever evolved a really good story from his inner consciousness unaided by some personal experience or incident of life."

This corroborates the assertion of Charles Lever, that "Fiction is commonplace; it is truth alone that oversteps the bounds of likelihood."

Dead for Certain.—

The following unique affidavit was recently presented at the United States Land Office, St. Cloud, Minnesota:

This is to certify that Sarah Langen, supposed to be single, died on February 8th, 1895. I have no memorandum stating just the cause of death, and I have had more to think about in caring for the living than thinking about the dead. I am quite certain that she is dead, and think I have certified to that effect at least once before. She was a patient of mine, and that ought to at least give me authority to know whereof I speak; and possibly it ought to be sufficient guarantee that she is dead.

The Doctor appears to have made out a pretty strong case, judging from the final sentence.

Modest but Versatile.—

The following letter was sent by the recipient for the delectation of THE AGE and its readers:

I would be much obliged if you could get for me a situation as dispenser to a medical man in London for four months in return for board and lodging with time for reading. I would be prepared to enter on my duties at the beginning of April. Besides dispensing I am willing to keep books, and visit and attend ordinary midwifery if the doctor took me to the first three cases.

I am, Sir,

Yours respectfully,

Edinburgh, Mar. 9th, 1896.

Wonderful!—

A Crookston—suggestive name,—Minnesota, paper announces a local doctor "is experimenting in a delicate matter of substituting a dog's kidney for a diseased human kidney," and that if it works, Bright's and other renal maladies will go out of business."

IF!!!

Tuberculosis from Tattooing.—

A British medical authority reports the cases of three boys who acquired tuberculosis through the saliva of the person who tattooed them. The operator soon after died from consumption.

American Academy of Medicine.—

The twenty-first annual session of this organization will be held at Hotel Aragon, Atlanta, Georgia, on May 2nd to 4th, 1896.

Items and News.**Digestion and Assimilation.—**

It has been very truly remarked that the value of a food article depends not at all upon the proportion of "elements" which may be discovered therein by chemical analysis, but on the amount which can be extracted therefrom by the laboratory of human digestion, and with the least effort and delay be taken up to rebuild the wasting tissues. These qualities make the milk and the oyster, though neither shows a high percentage, so valuable. The former contains all the elements which go to sustain life, in condition to be readily taken up and assimilated. But to this end—and it is the one fact which many people do not understand—only small quantities should be taken at a time; that is, the supply required should be administered gradually. The young of all animals are by nature obliged to obtain their milk food slowly, giving their digestive powers a chance adequately to do their work; and the lesson holds good for adults who seek nourishment from the like material. The oyster, in its raw state, is practically self-digesting, but when overcooked it becomes not only distasteful to the palate, but also slow and hard of digestion. The substance of all logic in the matter is, simply, that for everyday life an adequate supply of plain food, well cooked, taken at regular intervals, and under the right conditions, furnishes the only sure foundation for a healthful activity of body and of mind.—*Good Housekeeping.*

Apples and Baked Beans.—

Apples have a fine tonic effect on the stomach; one good apple will usually give a fine appetite in ten minutes. Eat two or three good-sized apples at every meal; by using apples largely, the physical power of endurance under labor, either mental or physical, is very much increased, and flesh is gained. This may be attributed largely to the fact that apples assist the digestion and assimilation of food of other kinds. Chemists record that apples contain a larger percentage of nitrates and phosphates (food for brain and muscles) than any other fruit.

The many cases of heart-failure we hear of nowadays are not so much heart-failure as heart-starvation. We consume too much fat-forming food, and the result is a shrinking and weakening of the muscles of the heart and other important organs. The muscles of the heart shrink away, and fat is substituted in place (fatty degeneration). Whatever a person's occupation may be, a good

supply of muscle-making, brain- and nerve-making food should be daily eaten. Baked beans—properly baked—contain over twenty-five per cent. of nitrites for muscles, and fully four per cent. of food for brain and bones; but they must be thoroughly cooked. They should not be eaten unless cooked twelve hours, and not then unless one is really hungry—the appetite sharp.—*Popular Science Monthly*.

Death of a Lion-tamer.—

Another victim has been sacrificed on the vicious altar of sensationalism. Recently a lion-tamer was going through a performance at Agricultural Hall, Islington (London), when a piece was torn out of his arm and his spine was injured by one of the beasts. The unfortunate man was carried off to hospital, where he died six days later with symptoms reported as resembling hydrophobia. From evidence given at the inquest it appeared that deceased had been three years in the employ of the owners of the menagerie. The three lions in the cage at the time of the attack had been performing together for eighteen months, and not one of them had shown the slightest trace of temper.

The simple report of this dreadful affair points its own moral. The repetition from time to time of these tragic deaths is nothing less than a scandal and a disgrace to our boasted nineteenth-century civilization. Why is not legislation enacted throwing the whole responsibility on the employers of the unfortunate "tamers"?—*Medical Press and Circular*.

Wearing of Shoulder-straps.—

A number of women have hopelessly deformed their shoulders by the wearing of shoulder-straps. The weight of the skirts on the straps wears little furrows in the heavy muscles of the shoulders.

The proper thing is a fitted waist, with heavy material set in round the arm-holes and down the sides as stays or strengthening pieces. To these are attached the buttons or hooks that sustain the weight of the skirts and hose.

It is absolute suicide to hitch these things upon the ordinary corset, as it throws the whole of the weight upon the body below the waist, and is the cause of more distress than one can well imagine. The waist is in every respect more desirable, and need not be high in the neck, but should cover the curve of the shoulders so that the weight of the garments may rest evenly over them.—*New York Ledger*.

Over-supply and Diminished Demand.—

A double suicide which shocked Paris the other day brought to the attention of the public the financial straits in which, it is said, a majority of the physicians of that city live. Doctor Langlard, an old physician who had been decorated by the Government for brave conduct during the cholera epidemic many years ago, committed suicide, together with his wife, because his practice had dwindled to the vanishing point and starvation was staring them in the face. In commenting upon the tragedy, several newspapers asserted that in Paris not more than one doctor out of five is able to make more than the barest living. Among the causes of this poverty among physicians is the destitution of most of their patients, while the number of doctors is rapidly increasing.—*British Medical Journal*.

Honor among Boys.—

As a mark of distinction, boys in the upper forms at Harrow wear tail coats. When Doctor Vaughan was master he caught a boy out of bounds by one of these tails, though the fellow managed to break away, leaving the "continuation" in the master's possession. Doctor Vaughan expected the discovery of the culprit would be an exceedingly easy matter, but was very much surprised to find that, unlike the foxes in the fable, all the boys in the form had cut off their tails in the same way.

The Japanese Army Medical Service.—

The Army is accompanied by 1350 medical attendants, of whom 380 are surgeons. The largest of the military hospitals is at Hiroshima. The staff consists of 56 surgeons and 501 nurses, as well as 173 surgeons and nurses from the Red Cross Society, in which many of the Japanese nobility serve; this Society has 138 practitioners and nurses in the field. Doctor Kitasato deserves much of the credit for the advanced condition of surgery, medicine, and sanitary science in Japan.—*Times and Register*.

Weight of the New-born.—

Pinard calls the attention of the Parisian Academy of Medicine to the influence which the amount of rest taken in the last weeks of pregnancy has on the weight of the new-born child. He notes the comparative weight of the children born to women who had worked steadily until the time of their delivery, and of those children whose mothers had been able to take a rest previous to their confinement, and found the children of the latter heavier, healthier, and more viable.

In a Woman's Stomach.—

A woman recently died at Albany, N. Y., who for a number of years had been possessed with a mania for swallowing all sorts of indigestible substances. The autopsy revealed in her stomach fifty-one hair-pins, sixteen needles, thirty-two nails of all sizes, two screws, three pieces of iron rod three inches long and one-fourth inch in diameter, two rolls of hair, two pieces of wood, and three pieces of cloth, each of the latter being about five inches long and one inch wide.—*Medical Review.*

Words of Wisdom.—

A bee is not a busier creature than a block-head. The more ignorant, stupid and shallow the latter is, the more assumptive, persistent and irrepressible he becomes. In party, sect or profession he is sure to be captious, fractious, envious, and noisy, until he becomes a distasteful, intolerant nuisance.—*Items of Interest.*

[Yes, and he often writes M.D. after his name.—Ed.]

Ergot from the Canary Islands.—

A new variety of ergot has lately been received at London from the Canary Islands, the first ever exported from that region. It is rather longer and more slender than Russian ergot, and Umney finds it to contain a larger percentage of extractive than either the Russian or Belgian product, and that it is quite equal to fine Spanish ergot.—*Pharmaceutical Journal and Transactions.*

Dangers of the Phonograph.—

An old farmer the other day drove into town and entered the phonograph store. He was a little incredulous as to the machines, but finally the tubes of one were placed into his ears, he was persuaded to drop a nickel in the slot, and then a brass band began to play. "Whoa there!" shouted the rustic, darting out of the store, "them mules o' mine won't stand no brass band."—*New York Visitor.*

"The Proof of the Pudding!"—

George Francis Train says that when he was a little fellow his grandmother used to tell him if he was a good boy, and studied the catechism, he might some day become one of the *great men* at Washington; but when, years after, he went down to Washington and saw some of those *great men*, he concluded his good old grandmother had been humbugging him.—*Dumb Animals.*

Book Reviews.

McCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. S. S. McClure, New York.

In the *March* issue Ida M. Tarbell continues her biography of "Abraham Lincoln;" Rudyard Kipling writes of "The Ship that Found Herself;" "A Century of Painting" is by Will H. Low; John Hay contributes "Personal Reminiscences of Colonel Ellsworth;" "Chapters from a Life" is by Elizabeth Stuart Phelps; "Scientific Kite-flying," by Cleveland Moffett. The poetry of the number is by Eugene Field and R. L. Stevenson.

A new romance by Anthony Hope begins in the *April* number. This issue contains also an illustrated article giving the first really authoritative and direct account of Professor Röntgen and his discovery of the cathode rays, with a supplementary article by Cleveland Moffett. "Soldier an' Sailor Too" is a new ballad by Kipling; Lincoln's first debate with Douglas is described; Elizabeth Stuart Phelps revives the tragic history of the burning of the Pemberton Mills. The subject of an illustrated paper by Will H. Low is the lives and paintings of "The Men of 1830," sometimes known as the "Barbizon School."

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

The issue for March contains: "The Forest," by Lord Ribblesdale; "The Rifle in Norway," by Sir Henry Pottinger, Bart.; "Sport in Sarawak," by Frederick Boyle; "How to Enjoy Hunting," by W. R. Verney; "Mouflon in Corsica," by Dayrell Davies; "Notes on Scales," by the Marquess of Granby; "Long Driving," by Professor Tait; "Point-to-point Steeple-chasing," by George Gordon; "The Gymnasium—Reminiscences and Hints," by H. J. Lloyd; "Aking in Norway," by Mrs. Alec Tweedie; "Prospects of the Racing Season," by R. K. Mainwaring. The illustrations are by C. E. Brock, Archibald Thorburn, John Beer, G. H. Jalland, G. D. Giles, Dayrell Davies, E. F. T. Bennett, J. E. Crace, L. Speed. There are the usual notes by "Rapier." This continues to hold first place among the magazines; it never palls or loses interest.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the April issue is "Flotsam," by Owen Hall; "The Vivisectionist" is by Carolyn Wells; "Between Reliefs," by Lieutenant Thomas H. Wilson.

O. L. writes of "Holy Week in Mexico;" Cleveland Moffett, of "Paris Swindles;" R. G. Robinson recalls the case of "An Expensive Slave" in Florida, who caused the war of 1833-39 and the loss of 1500 white lives; "The Drama of One Hundred Acres" is by Calvin D. Wilson; "Dreaming Bob," by C. C. Abbott; "On the War-path with Kit Carson," by William Thomson. The poetry of the number is by Susie M. Best, Mary Bradley, and Madison Cawein. An illustrated supplement, by Anne H. Wharton, treats of "The Washingtons in Virginia Life."

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 a year. Houghton, Mifflin & Co., Boston.

In the April number Henry James writes of "The Old Things." "China and the Western World" is by Lafcadio Hearn; "Old-time Sugar-making," by R. E. Robinson; "A Son of the Revolution," by Octave Thanet; "An Archer's Sojourn in the Okefinokee," by Maurice Thompson; "Some Memories of Hawthorne," III, by Rose H. Lathrop; "The Scotch Element in the American People," by N. S. Shaler; "The Alaska Boundary Line," by C. T. Mendenhall; "Latter-day Cranford," by Alice Brown; "The Case of the Public Schools," II, by F. W. Atkinson; poems by J. R. Taylor and Stuart Sterne. There are the usual departments.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Company, New York.

In the March issue the United States Minister to Siam writes of "America's Interest in Eastern Asia;" "Revival of the Olympic Games" is by George Horton; "Our Foreign Trade and Consular Service," by Charles Dudley Warner; "The Excise Question" is discussed by the Honorable Warner Miller and the Bishop of Albany; "The Future Life and the Condition of Man Therein," III, by W. E. Gladstone; "Our Defenseless Coasts," by G. N. Southwick; "The Natural History of Warfare," by N. S. Shaler; "Jamaica a Field for Investment," by the Governor of Jamaica.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. The Transatlantic Publishing Co., New York.

Number I, Volume CXV, contains: "Amaurosis and Amblyopia after Hæmatemesis," by E. H. Pergens; "Quinine and Malarial Amaurosis," by L. Demisheri; "Persistence of the Canal of Cloquet and Posterior Polar Cataract, Complicated by Specific Choroido-

retinitis," by L. Steiner; "Treatment of Epilepsy by Tenotomy of the Ocular Muscles," by Walter B. Johnson; and "Gonorrhoea as a Cause of Neuro-retinitis," by H. Campbell Hightet. There are the usual Reports of Societies, Reviews of Ophthalmological Journals, Book Notices, and Miscellany.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 a year. Charles Scribner's Sons, New York.

The leading articles in the April issue are: "Lord Leighton," by Cosmo Monkhouse; "Sentimental Tommy" (continued), by J. M. Barrie; "Revival of the Olympic Games," by Rufus B. Richardson; "The Last Quarter-century in the United States" (concluded), by E. B. Andrews; "Cinderella," by Richard H. Davis; "A Baby in the Siege," by Joel Chandler Harris; "The New Photography," by John Trowbridge; and "The Ethics of Modern Journalism," by Aline Gorren.

A MANUAL OF VERTEBRATE ANIMALS OF NORTHERN UNITED STATES. By David Starr Jordan. Cloth; 12mo; pp. 375. Price, \$2.50. A. C. McClurg & Co., Chicago.

This, to us, is a familiar volume, and we are not at all surprised that it has reached seven editions. Doctor Jordan, the well known President of the University of Indiana, was long connected with the Smithsonian Institute, and no one is more competent to pronounce upon the characteristics, nomenclature, etc., of the vertebrate animals of the Northern United States. This work includes all marine species, and all species in the districts north and east of the Ozark Mountains, south of the Laurentian Hills, north of the southern boundary of Virginia, and east of the Missouri River. We are glad to observe the tendency to conformity in the classification of species, and to decrease instead of multiplying technical titles; also that preference is being given to priority in description and classification.

No one interested in vertebrate study or in the study of natural history can afford to be without this volume. The great wonder is that such a concise and thoroughly compiled work can be marketed at so small a price. It affords a ready means of identifying any one species peculiar to the region covered, and also of recognizing the family characteristics on which genera and species are founded. Of especial advantage is the system of analytical keys by which definite characters are brought into contrast.

The present volume—wholly rewritten, and printed from new stereotyped plates—presents the order of arrangement reversed from

that which obtained in former editions, the lowest forms being placed first—thus, the fishes and reptiles are now the first, instead of the last, enumerated.

Even if one has an older edition of this work, he cannot—if he desires to keep abreast of studies in this line—afford to be without the seventh. Doctor Jordan is certainly to be congratulated on having put forth a work that has few equals and no superiors.

THE AMERICAN YEAR BOOK OF MEDICINE AND SURGERY. Edited by George M. Gould, M.D. Cloth; royal 8vo; pp. 1183. Price, \$6.50. W. B. Saunders, Philadelphia.

The general design of this work is to give physicians an annual epitome in compact form of the progress of medicine during the preceding year. The result is a magnificent volume which certainly covers the ground very completely. General Medicine is looked after by Doctors William Pepper and Alfred Stengel; Surgery, by W. W. Keen and J. C. Da Costa; Obstetrics, by Barton C. Hirst and W. A. N. Dorland; Pædiatrics, by Louis Starr and T. S. Westcott; Nervous and Mental Diseases, by Archibald Church and Hugh T. Patrick; Dermatology and Syphilis, by W. A. Hardaway and C. F. Hersman; Orthopædic Surgery, by P. and H. W. Gibney; Ophthalmology, by H. F. Hansel and C. F. Clark; Otology, by Charles H. Burnett; Diseases of the Nose and Larynx, by C. Fletcher Ingals and T. M. Hardie; Pathology and Bacteriology, by John Guitéras and David Riesman; Materia Medica, Experimental Therapeutics, and Pharmacology, by Henry A. Griffin and Van H. Navrie; Anatomy, by C. H. Hamann; Physiology, by G. N. Stewart; Hygiene, Medical Jurisprudence, and Chemistry, by Henry Leffmann. There are thirty-three full-page plates, besides minor illustrations.

AMERICAN TEXT-BOOK OF THE THEORY AND PRACTICE OF MEDICINE. Edited by William Pepper, M.D., LL.D. Volume I; cloth; large 8vo; pp. 950. Price, \$5.00. W. B. Saunders, Philadelphia.

This work presents a consensus of the teachings and opinions of some five of the ablest practitioners of America, and is all the more valuable because of the collation and editing of Doctor Pepper. Especial care has been taken with the papers on Hygiene, Disinfection, Isolation, and Preventive Medicine, and Bacteriology receives the full measure to which it is entitled. Indeed, the work as a whole is a most practical one. The sections on Symptomatology, Diagnosis and Treatment are especially full. Doctor John S. Billings writes on "Hygiene;" Doctor

Pepper on "Fevers;" Doctor Whittaker on "Contagious Diseases;" Doctor W. G. Thompson on "Acute Miliary Tuberculosis, Scrofula, Erysipelas, Malarial Maladies, Cholera, Yellow Fever;" H. C. Wood on "Diseases of the Nervous System;" Doctor W. Osler on "Organic Diseases of the Brain, Diseases of the Muscles, and Vaso-motor and Trophic Maladies." There are, moreover, fifty-eight elegant illustrations, besides three colored plates.

TWO YEARS ON THE ALABAMA. By Lieutenant Arthur Sinclair, U. S. Navy. Cloth; 8vo; pp. 575. Price, \$3.00. Lee & Shepard, Boston.

In his history of the C. S. Navy corvette *Alabama*, Admiral Semmes carefully confines himself within the limits of legal and professional statement, consequently the volume of Lieutenant Sinclair will be welcomed as a valuable supplement; it is, moreover, a complete and succinct narrative of the career of this vessel from the time it entered the service of the Confederacy until sunk in the harbor of Cherbourg, France. Needless to say, it is a most interesting volume, regardless of any preferences or sympathies of the reader. One is immediately introduced to officers and men, and taken with them to share their everyday life and adventure on shipboard. It is a book that will be eagerly read by all lovers of the adventurous, and should not be ignored by those who desire to know the innermost facts on both sides of the late civil war. Finally, the appendix contains a large amount of historical matter, biographical notices of officers, statistics, etc. The book is well illustrated, many of the pictures being from original photographs, which of course adds greatly to their value. We have rarely perused a volume so thoroughly readable and interesting.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. By Charles E. Sajous, M.D. Five volumes of 500 pages each; cloth; 8vo. Price, \$5.00 per set. The F. A. Davis Co., Philadelphia.

This well known publication, which is a complete epitome of the progress in medical science during the year 1895, is on our table. Volume One deals with diseases of the throat, chest, abdominal area, circulation, animal parasites, fevers, eruptive maladies, rheumatism, gout, etc.; Volume Two with the nervous system, mental maladies, inebriety, morphinism and kindred disorders, diseases of the genito-urinary system in females, teratology, infantile disorders, etc.; Volume Three reviews the field of general surgery; Volume Four deals with diseases of

the skin, eye, ear, and respiratory cavities, legal medicine, toxicology, and bacteriology; Volume Five—physiological chemistry, gynæcology, electro-therapeutics, climatology and balneology, hydrotherapy, hygiene and epidemiology, anatomy, histology, microscopical technology, and physiology. This, the final volume, contains a general index to the entire work.

MEDICAL JURISPRUDENCE, FORENSIC MEDICINE, AND TOXICOLOGY. By R. A. Witthaus, A.M., M.D., and Tracy C. Becker, A.B., LL.B. Cloth; 8vo; pp. 800. Price, \$5.00. William Wood & Co., New York.

The third volume of this excellent work continues the general subject of Forensic Medicine as begun in the previous issue. The first paper is by Doctor J. H. Woodward, on "Vision and Audition in their Medio-Legal Relations"—a very important subject. Then follows "Medico-Legal Aspect of Insurance," by Esquires David Murray and G. J. Edwards. "Insanity and its Relations to Medical Jurisprudence" is a paper of upwards of 200 pages, the subject being exhaustively treated by Doctor E. D. Fisher. "Mental Unsoundness and its Legal Relations" is by T. C. Becker. The concluding chapter is on "The Care and Custody of Incompetent Persons," by the Honorable Goodwin Brown—a perfect epitome of the medical and legal sides of this subject, with an abstract of the laws of the various States relative thereto.

This work is indispensable alike to the medical practitioner and the barrister.

AN AMERICAN TEXT-BOOK OF SURGERY. Edited by William W. Keen, M.D., LL.D., and J. William White, M.D., Ph.D. Cloth; large 8vo; pp. 1248. Price, \$7.00. W. B. Saunders, Philadelphia.

The value of this volume is evidenced by the fact it has been adopted as a text-book in no less than sixty medical schools. The editors have had the valuable aid of such gentlemen as Charles H. Burnett, P. S. Conner, F. S. Dennis, C. B. Nancrede, Roswell Park, L. S. Pilcher, N. Senn, F. J. Shepherd, L. A. Stimson, W. Thompson, and J. Collins Warren—a galaxy of talent which is an assurance of a work complete and up to date in every particular. Moreover, many of the most important subjects are considered from a new standpoint, and especial prominence has been given to surgical bacteriology, particularly in relation to asepsis and antisepsis. Above all, the illustrations are far superior to those generally found in works of surgery, and the typography is without blemish. It

is a work to be cordially recommended for either student or practitioner. Sold by subscription only.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, 1895. Cloth; 8vo; pp. 510. Published by the Society.

This annual, as usual, comes to our table replete with good things: the detailed workings of the Society and of local tributary societies are here given, with lists of members, etc. Among papers of especial value are: "The Curability of Cancer," by Farquhar Curtis; "Colles' Fracture," by N. Jacobson; "Inversion of the Vermiform Appendix," by G. M. Edebohls; "Prevention of Hernia after Laparotomy," by H. S. Durand; "Tolerance of the Peritoneum," by H. S. Elsner; "Double Pyosalpinx Evacuating through the Uterus," by E. L. Liele; "Pelvic Hæmatocele," by W. E. Colegrove; "Puerperal Septicæmia," by John Mann; "Leprosy," by P. A. Morrow; "Strangulated Hernia," by W. B. De Garmo; "Symptomatology of Cerebellar Diseases," by W. C. Krauss; "Relations of Water to the Blood," by B. C. Loveland.

There are also a number of articles of lesser interest—a total of thirty-eight papers, exclusive of six obituaries.

MANUAL OF GEOLOGY. By James D. Dana. Cloth; 8vo; pp. 1087. Price, \$1.25. American Book Co., New York.

In this fourth and latest edition of a well known manual, we find convincing evidence of its having been thoroughly revised and entirely re-written. New principles, new theories, and widely drawn opinions on various subjects, are presented, along with a profusion of new facts relating to all departments of geological science. The work is, moreover, a most complete bibliography, containing in brief form the titles of the most important geological and paleontological works and papers, which must needs be of the greatest aid to the working geologist or student who desires more details and to verify facts and dates. There is likewise a larger number of illustrations than ever before, many of them new—1575 in all—besides double-faced maps.

The work, in fact, is, as it ever has been, the leading authority and text-book on American geology.

THE PATHOLOGY AND SURGICAL TREATMENT OF TUMORS. By N. Senn, M.D. Cloth; 8vo; pp. 709. Price, \$6.00. W. B. Saunders, Philadelphia.

A complete work upon tumors has long been in demand—every practitioner knows

how difficult it is to secure sufficient knowledge of the structural and clinical tendencies of the different kinds of tumors to insure a reliable diagnosis. Doctor Senn has spent many years in preparing this work, and consequently is able to present a great deal of new and valuable material, which moreover is supplemented by an exceedingly practical and thorough series of illustrations—more than five hundred in number—including full-page colored plates. We bespeak for this volume a hearty reception on the part of the profession.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY, 1895. Cloth; 8vo; pp. 618. Grand Rapids. Published by the Society.

This, the nineteenth, is an unusually fine volume of the proceedings of this Society, and presents a large number of original contributions.—No less than sixteen pertain to the Section on Surgery, thirteen to the Section on Midwifery and Gynecology, and twelve to the Section on Medicine. There are, besides the annual address of the President, full reports of proceedings, discussions, etc. We also note the superior character of the illustrations.

FUNCTIONAL EXAMINATION OF THE EYE. By J. Herbert Claiborne, Jr., M.D. Cloth; 8vo; pp. 100. The Edwards & Docker Co., Philadelphia.

The author's purpose is to make the subject of fitting glasses clear to every reader. The widespread existence of refractive errors is hardly appreciated by the general practitioner. The simplicity of the descriptions should render this work valuable to students and practitioners alike. The chapter devoted to astigmatism is especially practical.

A HANDBOOK OF MEDICAL DIAGNOSIS FOR STUDENTS. By James B. Herrick, M.D. Cloth; 12mo; pp. 429. Price, \$2.50. Lea Brothers & Co., Philadelphia.

The title sufficiently indicates the scope of this volume, which is very practical and concise. The essential details are presented in a way to refresh the practitioner's knowledge in an art that is indispensable to success in therapeutics.

COLOR VISION AND COLOR BLINDNESS. By J. E. Jennings, M.D. Cloth; 8vo; pp. 115. Price, \$1.00. The F. A. Davis Co., Philadelphia.

This is a practical manual, and moreover a very complete *résumé* of testing for color vision and color blindness. It is of equal value to oculists, general practitioners, and marine hospital and railway surgeons.

Therapeutic Brevities.

For Colds.—Menthol, dissolved in chloroform, is the most efficacious of all remedies. A solution of one to two parts of menthol in twenty parts of chloroform will not only arrest the progress of a cold in its initial stage, but is also an excellent influenza prophylactic. From four to six drops of the solution should be placed in the hollow of the hand, quickly rubbed between the hands, the two hands tightly pressed together, placed before the face, and the remedy energetically inhaled alternately through the nose and the mouth. It will be immediately noticed that the volatile parts of the solution thoroughly impregnate the mucous membranes of the nose, mouth, and throat, and even penetrate deep down into the air-passage. During the first two or three inhalations the sweetish chloroform vapor predominates; afterward, however, only menthol, in an attenuated condition, is inhaled, odor and feeling remaining apparent for some time after the inhalation. As a rule, the first inhalation suffices to cure the severest tendency to sneezing, and often to arrest the progress of the cold altogether. Two further applications of the remedy in the course of the day suffice to repress the attack completely. The first inhalation at first slightly increases the flow from the mucous membrane of the nose; afterward, however, this symptom diminishes quickly. Pains in the pharynx and larynx may be quickly eased, and often entirely relieved, by the remedy.—WUNSCHÉ, in *Therapeutische Monatshefte*.

Nuclein in Tuberculosis.—I cured myself of genito-urinary tuberculosis by means of hypodermatic injections of Nuclein solution. Thorough physical examination, confirmed by bacteriological examination, made the diagnosis unquestionable, and I received daily injections of nuclein from April 1st to November 20th, 1894, with steady improvement in the local condition and general health. Only one hæmorrhage occurred after treatment was begun. In June, 1895 a bacteriological examination of the secretion failed to find anything abnormal, and the physical signs and symptoms had disappeared. I am now in excellent health and regard myself as cured. I believe in nuclein we have a remedy of great value in the incipient stages of this disease. Its tonic properties are in sharp contrast to the toxic destructive action of some of the recently advocated remedies for this disease.—DOCTOR ROSENBERRY, in *Therapeutic Gazette*.

Retrograde Catheterization.—In the case of a man, aged forty-nine, with impermeable stricture of urethra and a perineal fistula, the bladder was opened above the pubes and a sound passed into the urethra, brought out at the perineum, and the viscus closed. After ten days an abscess formed in the abdominal wound and there was some sloughing of scrotum. The patient recovered from this, and then an internal urethrotomy was performed, a catheter introduced into the bladder and there left for twenty days. Recovery was perfect. The second case was a man, aged forty-five, also with impermeable stricture and perineal fistulae. Retrograde catheterism was resorted to and the bladder sutured immediately, the edges being first sewed with catgut and then inverted with Lembert sutures of fine silk. This patient had primary union of the abdominal wound, notwithstanding that he got out of bed six times on the day of the operation to go to the water-closet.—DOCTOR MENDES, in *Annales des Maladies des Organes Génito-Urinaires*.

Whale Oil in Acne Vulgaris.—Boeck, referring to the observations of Guldberg on whale oil, directs attention to the peculiar power of penetration which it possesses. But another remarkable property does not seem to have been previously noticed, viz., that to a certain extent it restrains the vitality and growth of bacteria in the skin; this endowment the author has specially endeavored to make use of in the treatment of acne vulgaris, and not, as it appears to him, ineffectually. He uses the following formula:

- B Powdered camphor, 30 to 50 parts.
Salicylic acid, 30 to 50 parts.
Sulphur, 10 parts.
Zinc oxide, 2 parts.
Medicated soap, 1 part.
Whale oil, 12 parts.

This ointment is applied every night, and in the morning washed off with soap and water. The camphor is added to cover the unpleasant odor of the whale oil.—*Edinburgh Medical Journal*.

Killing with Kindness.—Milk, the innocent-looking white fluid we all absorb with such gusto, has been lately suspected of being loaded with typhoid and other germs. And this is, at least, questionable. Indeed, it begins to appear as if, for some unknown reason, when deprived of the germs it carries in its bosom, it is also shorn of its value as a food. A few weeks ago I was called to see a child aged eighteen months—a very puny, emaciated, old-looking atomy, crying day

and night, passing a dozen undigested stools a day. Since April last it had been fed exclusively on sterilized milk, prepared after the most approved scientific fashion, and it steadily declined life on these terms. If ever there was a scorbutic baby, this was one. I ordered a change to ordinary milk, defying its microbes, and felt like Ajax defying the lightning. I gave it beef and orange juice, and the baby and parents and I have held thanksgiving services every night since.—*Denver Journal of Homœopathy*.

Functional Impotence.—Here one usually has to deal with a condition in which the sexual apparatus is being constantly excited and irritated, and consequently the reflex centre in the spinal cord is never at rest. Therefore, in treating such cases, do not begin by putting the patient on aphrodisiacs (as phosphorus or damiana), but adopt a line of treatment that will soothe and tranquillize, and stay the patient's more or less morbid desire to accomplish sexual intercourse. I prescribe potassium bromide twenty grains, with tincture henbane twenty minims, in four drachms of camphor-water, four times daily. After employing this for two weeks (or longer if necessary), and its purpose having been attained, it is then, in the case of a married man, permissible to begin tonic aphrodisiac treatment. I find of special value, given four times a day, $\frac{1}{2}$ grain strychnine sulphate dissolved in equal parts distilled water and dilute phosphoric acid.—DOCTOR LINDSAY, in *Cincinnati Medical Journal*.

Polypi of the Middle Ear.—Very often chronic suppuration of the middle ear is complicated with, or the entire canal is closed by, a polypus. This form of growth always has its origin in the mucous membrane of the middle ear, and never in the external auditory canal, which is lined with skin and consequently could not give rise to a mucous growth. An inexperienced person would probably find difficulty in snaring this growth, so that it is often expedient to learn of some agent to cause its absorption. Absolute alcohol dropped into the ear three times a day for a fortnight, will seldom fail to accomplish this result. The chronic suppuration of the middle ear is the exciting cause, and should be removed.—*Medical Brief*.

Celery in Rheumatism.—It is asserted that rheumatism is impossible if celery be cooked and freely eaten. The fact that it is almost always put on the table raw prevents its

therapeutic powers from becoming known. The celery should be cut into bits, boiled in water until soft, and the water drunk by the patient. Put new milk, with a little flour and nutmeg, into a saucepan with the boiled celery, serve it warm with pieces of toast, eat it with potatoes, and the painful ailment will soon yield. Such is the declaration of a physician who has again and again tried the experiment and with uniform success. He adds that cold or damp never produces, but simply develops, the disease, of which acid blood is the primary and sustaining cause, and that while the blood is alkaline there can be neither rheumatism nor gout.—*Times and Register*.

Potassium Bichromate.—Potassium bichromate influences the mucous membrane of the respiratory and gastro-intestinal tracts. Its action, in my experience, is very marked in laryngeal troubles with hoarseness. In croup, alternated with aconite it is almost indispensable. It also gives most excellent results in the hoarseness of public speakers; but it is of little use in capillary bronchitis—only where irritation is confined to the larynx, trachea, or bronchi.

In gastric catarrh, with yellow-coated tongue, it will give pleasing results; also in chronic dysentery, where structural change has taken place in the lower bowels.—DOCTOR BURTBY, in *Eclectic Medical Journal*.

Ethyl Chloride as a Local Anæsthetic.—The introduction to the profession of ethyl chloride has filled a long-felt want, and as a local anæsthetic its reputation is well established. As furnished it is a clear fluid put up in glass bulbs which have metal caps attached, rendering them air-tight. Anæsthesia is produced in from one-half to one minute. I have found that by continuing the spray the local effects may be prolonged as desired; otherwise the effects will not last over two or three minutes—plenty of time for most incisions. I have used it very successfully in a number of cases, and in no instance has it failed to give me perfect satisfaction or to charm the patient with the result.—DOCTOR WARD, in *International Journal of Surgery*.

Chloroform Internally.—I carried out a series of elaborate experiments on seven healthy young men, in order to study the influence of chloroform, administered internally, on the gastric functions. In each instance the experiment lasted fourteen days, being divided into two equal stages, during the second of

which the subject was given from three to ten drops of chloroform with water three times daily. As a result it was discovered that chloroform markedly improves all the functions of the stomach, which fact suggests the drug might prove very valuable in the treatment of various gastric disturbances, and, before all, in dyspepsia.—DOCTOR STADNITZKY, in *Vratch*.

Succinate of Ammonia in Labor.—This drug is very useful in spasmodic, cramp-like pains and in partial contraction of the internal os during parturition. Where this contraction occurs during the third stage of labor, rendering it impossible to deliver the placenta, a couple of doses relax the spasmodic condition and enable the afterbirth to come away without difficulty. The mixture recommended is a simple solution of the succinate in 140 times its weight of water, a tablespoonful dose being given every quarter of an hour until relief is obtained.—DOCTOR REMY, in *The Lancet* (London).

Cleanliness and Menstruation.—Most women develop a veritable hydrophobia at this time and feel a security in shameful filth. I am in favor of plenty of boiled water, both as a douche with a proper nozzle, and as a bath locally, at these periods. If there is one time above all others when perfect cleanliness should be maintained, it is during the menses. The vagina full of blood and debris, the endometrium open and absorptive, and an abundance of organisms present, offer every opportunity for septic infection.—T. C. WITHERSPOON, in *Medical Fortnightly*.

Impure Tincture of Iodine.—A patient was painted on the chest with a "tincture." He attendants, and even some persons at a distance, were seized soon after with dyspnea, suffocation, weeping, conjunctivitis, rhinitis, and tracheo-bronchitis, to such an extent that it was necessary to open the windows to obtain relief. The local pain caused by the application was severe, but the reaction was slight, as the tincture evaporated rapidly. It was found that for economy the drug had been prepared with wood alcohol.—DOCTOR AUGIER, in *Bulletin Médical*.

Hæmorrhage After Tooth-extraction Arrested by Ethyl Chloride.—A girl twenty years old had a tooth extracted at noon, and at 1 P.M. was bleeding freely, hæmorrhage having been continuous since extraction. Pressure

and plugging with perchloride of iron produced no result. I then tried freezing with ethyl-chloride spray, after clearing out the clots, and was able to stop the bleeding immediately. To prevent recurrence I plugged the socket with wool soaked in tincture of hamamelis.—DOCTOR HIND, in *The Lancet* (London).

Cajuput in Pneumonia.—Oil of Cajuput is an excellent cardiac stimulant in asthenic pneumonia, especially when of influenzal origin. By administration of this remedy, six drops in a mucilaginous liquid, several times daily, to patients suffering from pneumonia and in a state of collapse, within a few hours marked and progressive improvement has been obtained. The cyanosis disappeared, the skin became moist and warm, the frequency of the respiratory movements moderated, the pulse grew stronger, and the patient ultimately recovered.—DOCTOR FOY, in *The Lancet* (London).

For Sciatica.—Troussevitch has relieved cases of sciatica which had resisted all kinds of internal and external treatment, in a few days, by the administration of Nitro-glycerin in the form of "drops," as follows:

- R Alcoholic solution of nitro-glycerin, 1-per-cent., $\frac{1}{2}$ drachm.
- Tincture of capsicum, 1 $\frac{1}{2}$ drachms.
- Peppermint-water, 3 drachms.

Five drops thrice daily in a tablespoonful of water for the first three days, and ten drops thrice daily on the following days.

—*The Practitioner.*

Appendicitis.—The *Philadelphia Polyclinic* believes, and we think justly, that not more than one in five cases, if as many, should be subjected to operative interference. It also makes the following appropriate suggestion: "We believe that the surgeon who may be summoned to a case of appendicitis before the physician, should call the latter to his aid before deciding that the case is one which will not recover under the judicious use of ice externally and appropriate medication."—*Pittsburg Medical Review.*

Phytolacca in Diphtheria.—I have found this remedy indicated in a large proportion of diphtheria cases during a dozen years' experience. Mild cases may be relieved by it alone, aided by hygienic measures. In severe forms it will prove a most valuable aid to other treatment. I place phytolacca

third in the list of vegetable remedies, and fifth in the list of all remedies, as to value for internal use in this disease.—E. E. SILL, in *Medical Brief.*

Baptisia.—This remedy appears to exert a great influence on tubercular affections, owing to the antiseptic qualities it possesses. I have found in catarrhal conditions of the liver and bowels, where there are putrid-smelling discharges of a black color, with great prostration and very little pain, this drug will sometimes bring about wonderful results; also in pneumonia where it takes on the typhoid form.—DOCTOR RUNDER, in *Medical Times.*

Treatment of Hemorrhoids.—Paint the nodules once daily with a two-per-cent. solution of nitrate of silver, which will cause gradual reduction without the least pain. In cases thus treated by me the "piles" entirely disappeared in the course of one or two weeks. As many patients positively refuse to submit to any surgical procedure, this method is worthy of trial.—DOCTOR SCHMEY, in *Allgemeine Medicinische Central-Zeitung.*

Chronic Pharyngitis.—Menthol, fifteen grains; oil of sweet almonds, 150 grains. Dip a water-color brush into this solution and paint the inside of the nostrils with it, the patient throwing his head back and breathing deeply. Then with an elbow-shaped handle and larger brush paint the pharynx copiously, reaching down as far as possible; also paint up into the nose.—FONGUERAY, in *La Médecine Moderne.*

Treatment of Wounds.—Dust the surface with a mixture of equal parts of iodoform and tannin. Tuberculous ulcers, granulating wounds, etc., heal better under this treatment than when simple iodoform is used. At first I tried tannic acid and potassium iodide, but had to abandon it. In fungating wounds with flabby granulations the tannin and iodoform mixture acts very well.—DOCTOR CECCHERELLE, in *Riforma Medica.*

Diet in Chronic Heart Diseases.—It is important to restrict the amount of liquid ingested by patients with heart disease. This alone often suffices to bring about compensation, and in many cases in which such drugs as digitalis are beginning to lose their power the heart action is kept up by making the liquid ingesta correspond to the excretion.—GLAX, in *Weiner Medizinische Presse.*

Croup.—Pilocarpine is a specific in the widest sense of the term. The action of the drug begins at once; relief is had in a few hours. It is indifferent whether it is administered by mouth, rectum, or subcutaneously. In urgent cases the subcutaneous method is preferable. Pilocarpine can be given up to twice the official dose without fear.—SZIKLAI, in *Birmingham Medical Review*.

Seasickness.—

- B Cocaine hydrochlorate, 10 centigrammes.
Extract of opium, 10 centigrammes.
Powdered marshmallow root, q. s.

Mix, and divide into ten pills. One pill every second hour.

Three or four pills usually suffice to relieve the patient.—DOCTOR EID.

A Grateful Mouth-wash.—In cases of fever, where the patient suffers so greatly in the mouth, where the toxic antiseptics cannot be used, nothing seems to give so much comfort as a mouth-wash made by adding about a half-ounce of Euthymol to a glass of water, to be used *ad libitum*. In a case of sarcoma of the maxilla it has proven a very godsend.—*The Nurse*.

Post-partum Hæmorrhage.—Saturate a piece of lint in turpentine, and introduce it by the hand into the uterus. Contraction soon takes place, and the hæmorrhage is stopped. The remedy is quick and certain in its action, and easy of application. It produces no injurious result.—DOCTOR MAYNE, in *Medical Record*.

Aconite to Abort Colds.—If small and frequently repeated doses are given, the result is that the fever is controlled, the pain in the muscles disappears, and the patient is put on the road to recovery. Aconite is a powerful aid in the treatment of acute bronchitis and colds in the head and chest.—*Medical Record*.

Rhus for Rheumatism.—Where the pain is of a drawing, tearing character, shooting in the joints, like a bruise or sprain, or with sensation as if the flesh were loosened on the bones, but better on moving about, the swollen parts dull red, Rhus offers rapid and certain relief.—DOCTOR DUNCAN.

Dermatology.—Good results are obtained from iodine topically used in ringworm, alopecia circumscripta, and tinea versicolor. In

ulcerative stomatitis, fungous gums, and various chronic anginas, painting with tincture iodine is an efficacious procedure attended by no inconvenience.—COMBY.

Scarlatina and Chloral.—Some years ago Doctor James C. Wilson suggested treatment of scarlet fever with chloral, just enough being administered to keep the patient in a somnolent or drowsy condition. It has always proved satisfactory in our hands.—*Medical Counsellor*.

Drugs to Children.—In giving very active remedies to very young children it is generally best to write out the name and amount of each drug fully, and not in figures, and to state at the top of the prescription that it is for a very young child and that the drops must be counted.—DANCHEZ, in *Medical Record*.

For Warts.—Apply daily a mixture of flowers of sulphur (150), glycerin (375), and pure acetic acid (75). Gradually the warts become shriveled and dry, and finally drop off. Shake the mixture well before it is used.—*Lyon Médical*.

Backache.—Doctor Carpenter has found that tincture of Gelsemium, in ten-drop doses every three to four hours, often relieves the pain after the more popular remedies have failed.—*Philadelphia Polyclinic*.

Scarlatinal Dropsy.—This condition has been relieved by hot baths and subsequent hot packs by means of a blanket, so as to produce copious perspiration.—*Exchange*.

Varicose Ulcers.—Dr. Jousset, of Paris speaks very highly of *Clematis vitalba*, internally and locally, in the management of varicose ulcers.—*L'Art Médical*.

Psoriasis.—Five minims oleo-resin copaiba administered three times daily, is recommended for long-standing cases.

Anasarca.—Pilocarpine and elaterium will prevent the reaccumulation of fluid in dropsical cases.—HUGHES.

Chorea.—Progressive doses of strychnine are recommended.

Medical Progress.

OBSTETRICAL SUPERSTITIONS.—In no department of medicine does the practitioner meet with so many absurd superstitions and traditions as in the practice of obstetrics. Like all superstitions, they are difficult to eradicate, and woe to the venturesome practitioner who undertakes the job; he is at once set down as having very little knowledge and less experience. It is not my purpose to give a list of these superstitions or traditions, but merely to mention some of the most common ones, laying special stress upon those productive of great harm to the lying-in woman and her offspring.

As soon as a woman is known to be pregnant she is overwhelmed with advice from those of her friends who have been through the mill; even the husband does not always escape, but is commiserated with on account of morning sickness, though I have never seen a case in the masculine that could not be more properly ascribed to the worship of Bacchus than to that of Venus. A favorite and largely advertised remedy for lessening the pains of labor is known as "Mother's Friend"—an ointment, to be rubbed daily over the abdomen, said to insure an easy and uncomplicated labor; I have heard intelligent and well educated women highly laud this remedy. The prospective mother is urged also to look only at beautiful objects of art, etc., if she desires a pretty child. I have known these same well educated women to invest in a beautiful picture and spend hours each day wrapped in contemplation of it; less frequently they betake themselves to the study of higher mathematics and the sciences, hoping by this means to bring forth a being of extraordinary intelligence. Some of the friends also predict with confidence the sex of the child according to the manner in which it is carried. When labor begins, there comes a deluge of suggestions as to the position the woman should assume: if she extends her arms above her head, she is at once told to lower them, as such a position will knot the cord around the neck of the baby and produce its death. If her pains are very severe, and the attending physician advises the use of chloroform, the patient, if a multipara, will probably demur, because So-and-So told her that if ever under any circumstances she took chloroform it would kill her. If the patient does not object, some of the neighbor-women will "chip in," saying that it is not right to give it—that it is flying in the face of Providence, etc.

No labor is without some pain, but in many

cases the pain is easily bearable; the ability to bear and to feel pain varies with the individual. I have delivered women who made no outcry and seemed to suffer a minimum of pain; they did not wish to take chloroform, and as there seemed to be but little suffering I did not insist upon its use. But I think it is the duty of every doctor to rob the lying-in chamber of all the agony possible; it is a cruel and disgraceful thing for him to sit and listen unmoved to the agonizing cries of a woman in this the most critical time of her existence when he has the power to safely and easily relieve her. With little effort on his part the lying-in room can be made very much less terrible to the prospective mother, and the frequency of abortions and conjugal onanism be thus indirectly diminished.

In the first stage the pain can be greatly mitigated by the use of chloral hydrate and the hypodermatic administration of morphine. Fifteen-grain doses of chloral given every half-hour until three doses have been taken will produce sleep, and after this the pain sets in with renewed vigor. A full dose of morphine may also be given; it quiets the pain for some hours, but when its effects die out the pains are stronger and more efficient.

In the second stage the analgesic *par excellence* is chloroform. No one now contends that its use in the lying-in room is dangerous. I have been unable to find a single well authenticated case of a death occurring from its use under such circumstances. If a retardation of labor occurs when chloroform is given, it is of short duration; if the drug is given properly the patient will soon begin to add voluntary efforts when she finds they are less painful than before,—by giving properly I mean it should never be pushed to the surgical degree, except during operation or when the head is crowding; its use in the latter instance is important, as it enables the accoucheur to control the advance of the presenting part, deliver it in the interval of a pain, and thus diminish the danger of laceration of the external structures.

In regard to chloroform favoring post-partum hæmorrhage, I have never seen a case that could properly be attributed to its use. In quite a large experience the only cases of post-partum hæmorrhage I have seen have been the result of long and fruitless efforts on the part of the mother, resulting in a complete fagging out of the uterus and necessitating artificial aid. None have resulted fatally.

When the child is born and the doctor is preparing to cut the cord, he is sometimes interrupted and told he must cut it longer, as the length of the penis at maturity depends

on the length the cord is cut. I have never been able to verify or refute this idea, as the oldest male I have ever delivered is only thirteen. Old nurses insist on burning the afterbirth to avoid the occurrence of after-pains. Also to facilitate the passage of the placenta the patient is told to blow into a bottle or her closed hands or to take snuff.

Too early efforts to deliver the placenta are objectionable; and the practice of Credé's method of expression at the expiration of fifteen minutes does great harm, frequently resulting in retention of a part of the membranes and in cupping of the uterus. It is natural that the uterus should rest after its long labor, and the placenta will be extruded ordinarily when this has taken place.

There is an obstetrical superstition the observance of which has cost numberless lives and desolated many homes, viz., the fancied superiority of the old quilt or "comforter" as an absorbent of liquor amnii, blood, urine, etc. The older and dirtier it is, and the more often it has served in a similar capacity, the more highly it is prized. It is the duty of all physicians to aid in its complete abolition; the means of so doing are within reach of all, the only materials necessary for an aseptic pad being a yard or so of cotton to make a bag, and bran or sawdust with which to fill it. A little absorbent cotton or oakum should supplant the so-called clean rags used to catch the lochial discharge.

Puerperal fever is generally regarded as an unavoidable disease, but if the falsity of any theory has ever been proved it has been this.

Another pernicious superstition is that as soon as the baby is dressed it needs something in the way of nourishment,—usually fat bacon, a sugar teat, whiskey and water, or some variety of tea. The sooner such ideas are done away with, the better. The infant should not be given anything, but after a while put to the breast, and then wait for the secretion of the mother's milk, which will take place before it succumbs to starvation.

There are many other superstitions relating to the child: For instance, it is considered highly improper to take it down stairs before taking it up: Its nails are to be bitten off, for if they are cut the child will be a thief, etc., *ad nauseam*. The mother must stay in bed for nine days and eat nothing but toast and tea,—she was formerly starved, but now she is allowed to eat anything she chooses in reason and is kept in bed (if she has had a hard labor) for from two to three weeks. Those of her sisters who get up very early, age much quicker, as witness the North American Indians.—DOCTOR T. S. BULLOCK, in *American Practitioner and News*.

CADAVERIC INSECTS AND DEATH DATA.—A dead body, when exposed to the open air, generates vast numbers of maggots—the larvae of flies, beetles, moths, and acari. Detachments from these various armies invade the cadaver successively, according to the changes produced by putrefaction. There are eight of them which take the field, always in the same order, from the period immediately following death down to that of complete dissolution:

Flies (genera *Curtonevra* and *Calliphora*) which feed on the dead flesh while it is still comparatively fresh:

Flies (genera *Lucilia* and *Sarcophaga*) which appear from three to six days after death:

Beetles (genus *Dermestes*) and moths (*Aglossa*), three or four months after death; both are attracted by the formation of cadaveric fat:

Flies (genera *Piophilæ* and *Anthromyia*) also beetles (*Necrobia*), both allured by what may be called the caseous stage of putrid fermentation; the first-named flies are of the same kind as those which attack rotten cheese and are guided by the same instinct. All of them appear about eight months after death.

Flies (*Ophira*, *Phora*, and *Tyreophora*) which appear about one year after death when the soft parts are reduced to a blackish liquid:

Beetles (genera *Silpha*, *Hister*, and *Saprinus*) with acari (of the group of *Tyroglyphines*), all of which absorb the liquid humors their work lasts until the eighteenth month after death:

Beetles and moths which consume the dried up tissues, the tendons and the hairs that have escaped putrefaction; they comprehend *Anthrenes*, certain *Dermestes*, and very small moths of the genus *Tincola*; their share in the process occupies the third year:

The last group, which subsists on the final products of decay left by the preceding, includes beetles of the genera *Tenebrio* and *Ptinus*; they are found even on four-year old corpses:

These observations apply only to bodies putrefying in the open air. Investigation of those which decompose under ground, in water, etc., would probably yield different results.—Report by M. MEGNIN to the French Académie.

BRIGHT'S DISEASE AND INSANITY.—Attention is being directed to the influences of organic renal disease upon brain function. There are two ways, at least, by which the relation can be explained.—First, as the

result of toxæmic conditions incident to Bright's disease, brain function, and finally even brain structure, may suffer. The important rôle which various toxins circulating in the blood play in the production of nervous diseases—including insanity—is receiving fuller recognition from year to year. The more this subject is looked into, the more important it becomes in its practical bearing on the study of nervous diseases.

On the other hand it should be kept in mind that Bright's disease is not a local lesion, and that the structure of the brain may suffer as a part of the degenerative process widely distributed through the body but most strikingly manifested in the kidney because of its importance as an eliminative organ. The acute delirious attacks of Bright's disease are familiar to every clinician; and the difference between these and the true insanities occurring as complications of Bright's disease is simply one of duration—and, it should perhaps be added, of intensity. The acute intoxication is more active and violent; but all that is necessary to constitute an insanity out of it is to make it persistent.

With neurotic family or personal histories the possibility of insanity occurring as a result of Bright's disease should be kept constantly in view; as should also the possible existence of an undiscovered kidney lesion in cases of mental disorder.—*International Medical Journal*.

CASE OF *FILARIA SANGUINIS HOMINIS* IN PHILADELPHIA.—At the meeting of the Philadelphia County Medical Society in February last, Doctor F. P. Henry presented a number of microscopic slides showing the embryos of the *Filaria sanguinis hominis* alive and active. The blood was drawn from the finger of a colored woman in the Woman's Hospital who had developed hæmato-chyluria after labor. The patient was a native of South Carolina, had spent some years in Georgia, and had been in Philadelphia two years. Doctor Henry believed the worm had been acquired in the South, and that rupture of a lymph-vessel during the strain of labor had led to the chyluria, with discovery of the parasite.

He stated that a Cuban with chyluria, whose case he had previously reported to the Society, had died, and that at the autopsy the abdominal lymph-vessels were found to be much distended, but that neither embryo filariæ or parent worm could be found; nevertheless, he believes it to have been a case of parasitic chyluria.

Doctors Tyson, Wilson and Cohen narrated cases of chyluria in which the parasite

had not been discovered, despite careful search of the blood during both day and night, and which were, therefore, presumably non-parasitic. Doctor Henry's case was one of the most common variety, *Filaria nocturna*, and the parasite was consequently not to be found in the blood drawn from the surface vessels during the day.

It was stated that this was the first time the living filariæ in the blood had been demonstrated in Philadelphia.—*Medical and Surgical Reporter*.

SYPHILIS THROUGH FLEA-BITE.—Jonathan Hutchinson reports a primary lesion of syphilis of unusual origin. An elderly member of the profession presented himself, covered with an evidently syphilitic eruption, which rapidly disappeared under the use of mercury. The only interest about the case was the question as to how the disease had been acquired. The doctor was evidently anxious to give all the information in his power, but was positive that he had never been exposed to any sexual risk, and, as he had retired from practice, no possibility of infection in that manner existed. He willingly stripped, and a careful examination of his entire surface revealed no trace of lesion whatever on the genitals or at any point, except a dusky spot on one leg which looked like the remains of a boil. This the doctor stated had been due to a small sore, the dates of the appearance and duration of which were found to fit exactly with those of a primary lesion. There had also been some enlargement of the femoral glands. He had never thought of the sore in this connection, but remembered most distinctly that it followed a flea-bite in an omnibus, and had been caused (he supposed) by his scratching the place, though he could not understand why it lasted so long. Mr. Hutchinson concludes that all the evidence tends to show that the disease had probably been communicated from the blood of an infected person through the bite of the insect. It thus appears that even the proverbially trivial flea-bite may prove a serious injury at times.—*Medical News*.

DYING DECLARATIONS.—In a trial for murder which took place at Devizes recently, it became apparent how important it is when a dying declaration is to be taken that the dying person should understand the true position of affairs. In this case, although the dying woman had been told how ill she was, her declaration contained the sentence, "I might get better; I am going to have a

good try," and it was maintained for the defense that the declaration was inadmissible, the woman who made it not having that hopeless expectation of death which was legally necessary. Ultimately it was not allowed as a dying declaration, but was admitted against those prisoners who were present as being a statement made in their presence. It is clearly very important when a dying declaration, on which may depend the lives of the accused, is to be made, that every care should be exercised on the one hand not to take it so long as hope of recovery remains; and, on the other hand, when the moment arrives when it is thought right and justifiable, then, at least, the dying person should know without doubt the condition of affairs. It is clear, also, that a statement made before the case is hopeless cannot safely be afterwards converted into a dying declaration by being assented to and signed when hope has gone and the intellect is becoming clouded.—*British Medical Journal*.

GONORRHOÆAL PLEURISY.—Many cases are reported, but very few present sufficient evidence to be properly so classed. Nevertheless, gonorrhœal pleurisy can occur, and Bordonì-Uffreduzzi cites an instance in a girl, aged eleven years, who was assaulted by an individual with gonorrhœa. Some days after the initial disease was contracted, she was attacked with severe polyarthritides, and later a double pleurisy developed; she also showed symptoms of endo- and pericarditis. Mazza, on examination of cover-slips from the pleural exudate, found numerous organisms morphologically resembling gonococci within the leucocytes; furthermore, he was able by Wertheim's method to cultivate the organism and show that he was dealing with a pure culture of Neisser's coccus. There is a need of further bacteriological investigation on this subject.—FAITOUT, in *Gazette Médicale de Paris*.

WALKING TYPHOID AND PERFORATION.—A sailor was found suffering intense abdominal pain, and vomiting, to relieve which morphine was given. He was nourished by means of rectal enemata. The symptoms grew worse, and finally, on his own solicitation, the abdomen was opened, when out gushed a milky fluid which proved to be the nutrient enemata; this fluid had reached the peritoneal cavity by the means of a typhoid perforation situated about ten inches from the ileo-cœcal juncture. Enteric fever had not been suspected; the man had not been confined to his

bed, but had during his illness sufficient liveliness to acquire gonorrhœa, which was acute at the time of the cœliotomy.—DOCTOR WHEELER, in *Medical Sentinel*.

PSORIASIS MODIFIED BY SYPHILIS.—A female fifty years of age, of rheumatic parentage, had been afflicted with psoriasis since infancy. She contracted syphilis in October 1893, was treated by Doctor Paul at the Charité, and left totally free from all specific lesions, with a few psoriatic plaques; but suddenly, in September, 1894, she was attacked with a papular syphilide and a new outbreak of psoriasis, disseminated all over the trunk of the body, though the previous eruption had been confined to the extremities.—RENAULT, in *Proceedings of the Société de Dermatologie*.

CHLOROSIS AS AN INFECTIOUS DISEASE.—observed an epidemic form of chlorosis in a small village, in which eight young girls under favorable hygienic conditions were successively affected, fever being the initial symptom. Enlargement of the spleen was constant—phlegmasia alba, dry pericarditis, and pleurisy being frequent complications. These could hardly be explained by a simple disturbance of the hæmatopoietic function.—CLEMENT, in *Centralblatt für Gynäkologie*.

STAPHYSAGRIA.—This drug will alleviate pains from incised wounds in almost every case, whether from accident or after operations. It is especially indicated after abdominal incisions, where the patient complains of the sharp biting pains we have heard of so often.—DOCTOR MITCHELL, *Southern Journal of Homœopathy*.

DEATH DUE TO ROUND WORMS.—A correspondent reports a case of fatal diarrhœa due to ascarides. One hundred and eleven round worms were passed as a result of the administration of santonin, but the child gradually grew worse, dying a few days later.—*Indian Lancet*.

COLD SPONGING.—There are few customs so conducive to health as sponging the surface of the body all over with cold water every day; and rarely will he or she catch cold, even by exposure, who bathes thus every morning upon rising.—*Exchange*.

The Medical Age.

VOL. XIV.

DETROIT, APRIL 25th, 1896.

No. 8.

Original Articles.

THE DETERMINATION OF SEX.

BY C. C. MAPES.

A recent editorial in the *New York Medical Times*, under the caption of "Male and Female," suggests a few remarks which may prove interesting even if possessed of no scientific value.

The most careful and minute researches of modern science have revealed practically naught to positively prove or disprove any theory advanced concerning the determination of sex, and we are unable at the present time to assert that this much-mystified problem can or ever will be satisfactorily solved. We may theorize until the end of the chapter, but we must have something more substantial than theory alone upon which to base logical conclusions. Experiments within the animal kingdom furnish the best evidence upon which to base conclusions; but when applied to the human being, exceptions are so frequently encountered that the mystery remains unsolved.

The writer has always been an earnest student of nature, and several years ago made a series of experiments with the *genus bovis* which furnish the basis for these remarks; the object at the time being to bring about, if possible, the production of a greater number of males, and at the same time in the interest of science to discover a substantial, tenable reason for the determination and equalization of sex, as we realize that under ordinary circumstances the annual production of male and female calves from a given number of cows should be about equal. The information gained from my experimentation has never been offered for publication, as, while satisfactory results were accomplished, I did not regard the logical deductions sufficiently important, from a scientific standpoint,

to warrant publication. From notes preserved, I will give a brief *résumé* of the essential features.

The stock farm where I spent several years is located in a valley of one of our New England States. The owner, desiring to produce male stock for market, had been disappointed and annoyed that his cows brought forth only female calves. He imported several young bulls, with no better results. Inquiry developed the fact that his cows had always been admitted to the bull just as soon as evidences of heat were manifested. He said this had been his universal custom, as he believed it was proper; that it was the natural way; and that he thought a higher grade of stock would result by following this plan. I offered the suggestion that this might account for the preponderance of females; in any event it looked reasonable that the time of impregnation might exert some influence upon the determination of the sex, and to make an experiment would involve no financial obligation and might result in an improvement of the existing conditions.

Accordingly fourteen of the most healthy-appearing cows, of about the same age, were selected for the experiment. These were carefully watched, and withheld from the bull until the sixth day after they manifested evidences of the *œstrum*. The result of these fourteen impregnations was, ten male and four female calves. A similar experiment the following season with the same cows resulted in twelve males and two females. The next year the same cows were admitted to the bull during the third day of heat, resulting in eight male and six female calves. The same bull was used the first two seasons, and a fresh one the third, in each case the age being two years.

The results of these observations, covering three consecutive years, are certainly worthy of serious consideration, and indicate the fol-

lowing conclusions as being reasonable if not altogether proved:

That if a cow is admitted to the bull during the first or second day of heat, the result will almost certainly be a female calf:

That if admitted the third day of heat, the chances will be about equal as to sex:

That if admitted the fourth or fifth day of heat, the sex will likely be male:

That if admitted later than the fifth day after manifestations of heat, the sex will almost certainly be male.

During these experiments all the cows received exactly the same attention and care, so that the question of nutrition cannot be considered as a factor in the determination of sex. In the experiments made upon animals and insects by some investigators, nutrition seems to have played an important rôle in the production or determination of sex, notably in caterpillars, plant-lice, and bees; the same has been observed in sheep; but the rule does not seem to have proven true in all cases.

Applying these observations to the human species, it would seem that if impregnation occurs within three or four days after cessation of the menses, the result should almost certainly be a female; from five to seven days, the chances should be about equal as to sex; from eight to ten days, the result should almost certainly be a male. Exceptions, however, to this rule are so common that its influence in the human being is very questionable.

The theory that age has a definite bearing upon the determination of sex, both in the mammalia and in the human species, has had many earnest advocates; that is, if the male parent be older than the female, the offspring will be most likely male, and *vice versa*. This theory is plainly contradicted in the experiments above outlined, as the male in each case was younger than the female. It would therefore seem that the question of age of the parent is at best entitled to only a secondary consideration in relation to the production or determination of sex.

The theory of nutrition, already referred to, has gained some popularity, it being held by the advocates of this theory that animals fed upon innutritious diet are likely to beget male offspring, while a highly nutritious diet

produces a preponderance of females. This theory is likewise controverted by my experiments, all the animals having been fed precisely alike, with results as stated.

Again, it has been asserted that sex is determined by the superior parent, and that the superior parent produces the opposite sex. This view has never gained popular favor, and I believe justly so, as there seems little to substantiate it. Further, authorities have not definitely explained the superior features which must necessarily be present to invariably produce the opposite sex.

Observations among plant life show that temperature bears an important relation to the determination of sex, but this agency seems to have no definite effect when applied to the animal kingdom; for we know that, all things being equal, males and females are produced in the frozen northern regions in about the same relative proportion as in the equatorial zone.

As to the cause which determines sex, then, it would appear from the results of my experimentation that the time of impregnation is the principal factor to be considered, but when this rule is applied to the human being the exceptions are so numerous that we are unable to formulate any positive conclusions

Louisville, Kentucky.

BRONZE DIABETES.

BY DOCTOR A. DUTOURNIER.

Of late there has been a tendency to return to the study of maladies marked by pigmentary lesions—a group which has been so ill explored that it is impossible to classify its members or indicate their relations. Since 1882, thanks to the labors of MM. Hanot and Chauffard, there has emerged from this obscure group a very clear syndrome of symptoms, marked by the coexistence of diabetes mellitus and pigmentary lesions, and signalized and studied by these authors in a very remarkable memoir in the *Revue de Médecine*. New cases were subsequently published and discussed by M. Letulle,* MM. Hanot and Schachmann,† Brault and Gaillard,‡ and M.

* *Bulletin de la Société de Médecine des Hôpitaux* 1885.

† *Archives de Physiologie*, 1886.

‡ *Archives de Médecine*, January, 1888.

Barth.* These have contributed to our knowledge of a disease, cases of which, formerly few in number, have now become more numerous—as the symptoms have become better known. To these cases should be added the one exhumed by Hanot from the clinics of Trousseau.

Of all the titles which have been successively applied to this affection, preference is to be given to that announced by Hanot and Schachmann, viz., “Bronze Diabetes,” since this does not carry with it any pathogenic definition.

Bronze diabetes does not always make the same début. Sometimes the first symptoms are those of ordinary diabetes—polydipsia, polyuria, glycosuria, and, more rarely, polyphagia. At other times the initial symptoms are more unusual and consist in disturbances of the respiratory apparatus, actual diabetes not supervening until later.

At a period which the patient always finds it difficult to fix with precision, but which appears to be fairly close to that of the first manifestations of the diabetes, the pathognomonic symptom of the affection—melanodermia—develops; the malady may then be regarded as fully pronounced. At this period, too, four prominent symptoms serve as essential points of diagnosis, viz.: Diabetes; abdominal troubles, among which hepatic cirrhosis occupies the first rank; the pigmentation of the skin; and a very rapid cachexia.

The diabetes is attended more or less completely by its usual array of symptoms, but in the majority of instances is not of extreme intensity. The excessive appetite is its most vacillating manifestation and, in all cases, the least pronounced. The polydipsia, and its corollary the polyuria, are much more pronounced. The urine is clear and amber-hued, differing little from that of ordinary diabetes; it decomposes quite rapidly when exposed to air, but without change of color; its density remains in the neighborhood of 1.030; the quantity of sugar is between six and eight ounces, and varies slightly in different patients at the same period of the malady—in fact, the total glycosuria varies according to the stage of the disease; azo-

turia is sometimes observed; in general, there is no albumen. M. Auscher has investigated the pigment in the urine, but his experiments, confined unfortunately to a single case, have not revealed either pigment or melanogene.

As the disease progresses, the diabetic symptoms undergo essential changes; each is successively attenuated, and often disappears completely. Hunger is rapidly appeased, then thirst. The urine becomes meagre; the sugar is reduced little by little, and often disappears during the latter days of treatment. Slowly the tableau of symptoms becomes transformed, while often symptoms of another order arise or become accentuated, such as ascites or œdema of the lower limbs.

The troubles of the abdominal organs are always of great importance: the abdomen becomes inflated, first by spells and then permanently, and is presently covered with a plexus of subcutaneous veins. Next a dropsical effusion, more or less serious, supervenes, generally at an advanced period of the malady; this ascitic fluid is clear, of lemon-yellow color, though at times it may be dark and red. Percussion and palpation show that the liver plainly passes beyond the edge of the false ribs, and at times may appear six fingers' breadth below them; yet it preserves its general form, and the two lobes are in the same proportion, as is shown by the sub-hepatic groove which may be readily felt along the lower edge, and which is sharp and smooth. The entire liver is perfectly smooth and does not present appreciable nodules; it is of a hard consistence, so that it may not always be examined without causing pain. With such a liver, a plain icterus has been observed in only a single case, where it proved transient, but a sub-icteric tint of the conjunctiva is frequently observed. The spleen, though in general somewhat hypertrophied, never becomes large.

Along with these physical signs, a certain number of functional symptoms appear. There is the dyspepsia, which may be masked for a long time by an exaggerated appetite; there is dryness of the tongue and inflammation of the gums, and these are relatively more frequent than in common diabetes. The epigastric meteorism, with

* *Bulletin de la Société d'Anatomie*, 1888.

flatulence, torpid digestion, then the anorexia—which may reach the point of disgust for food—soon manifest themselves, and a little later there is nausea and vomiting and diarrhœa.

In the third group of symptoms the skin presents a peculiar and characteristic aspect which affords the chief evidence for diagnosis. It is dry, wrinkled, scaly, with a peculiar tint—a hue that is *sui generis* and cannot be confounded, when fully developed, with any other melanodermia. The victims uniformly exhibit a leaden complexion, of a blackish-gray, with metallic reflections; at the same time they resemble old malarial subjects and sufferers from argyria—a rare skin disease characterized by silver spots,—the coloration being uniformly extended over the whole skin. No hyperpigmented points are observed by the side of others more pale, and nothing recalls the aspect of vitiligo; yet it does not follow that the pigmentation is equally pronounced all over, since there are points of predilection which appear, in order of frequency, in the visage, the dorsum of the hands and forearm, the genital organs, and the lips. This pigmentation of the skin is far from presenting the same intensity in all patients and in all periods of the malady, and in some cases it may even be completely absent.

The period of the appearance of this melanodermia is inaccurately noted by the afflicted themselves, since it develops slowly, progressively, insensibly; moreover, it is variable, as is its mode of evolution. Toward the end of the malady, two things may occur: the slate-colored tint of the first period may become more sombre and pronounced, especially at the points of predilection; or, on the contrary, it may disappear and give place to a yellow coloration resembling the skin of dirty individuals.

If cutaneous pigmentation is the rule, that of the mucous membranes is the exception. Until recently it was admitted as beyond dispute that pigmented plaques of the mucous membranes never existed in bronze diabetes, and that their very existence must cause the balance of diagnosis to incline towards Addison's disease; but the experience of Mossé dispels this opinion, since he found a patient who presented the pigmentation (little marked,

it is true) within the mouth, on the buccal membrane and upon the inside of the lower lip.

Auscher made a number of experiments with blood obtained from the finger of a bronze diabetic, and in the midst of a mass of clear and transparent granulations (fibrinous granulations, hæmatoblasts, or débris of white corpuscles) found six little pigmentary masses—three of them ochre-colored, three black.

To the groups of symptoms already described may be added a fourth as a complement and consequence of the others—and of such material importance that several authors have sought to summarize the entire malady in the term, bronze cachexia. This is a constant and rapid symptom. The face is emaciated and bony, the glance vague and uncertain, the expression depressed and sad; the body is lamentably emaciated,—Mossé's patient finally weighed only eighty-six pounds; debility is so great that the members seem seized with a veritable paresis, and at this moment hæmorrhage may supervene in the form of purpura, epistaxis, or hæmaturia. The cachexia, incontestably related to the appearance of the melanodermia, is distinguished from diabetic cachexia in general in that it is more precocious and more intense and causes speedy death by its own evolution.

Besides the foregoing symptoms, the nervous system manifests the disturbances commonly observed in diabetes, viz., headache, insomnia, absence of patellar reflex, debility, and in the respiratory apparatus may be observed congestions extending more or less from the bases, and at times complicated with a slight pleuritic effusion.

The malady progresses without fever, and the duration is never long, seldom exceeding from eight to fourteen months; and death, which is the invariable termination, is caused by the mere progress of the cachexia in the marasmus. At times the fatal issue is hastened by a pulmonary affection, such as tuberculosis, pneumonia, or intense hypostatic congestion.

The post-mortem reveals in the abdomen from twelve to sixteen pints of fibrinous liquid; the peritoneum is peculiarly colored, often with large irregular plaques of slate

colored or bluish-black pigmentation, imparting to the visceral cavity an appearance (according to Auscher) like that found in lizards. The liver, as a rule, is voluminous, weighing from eight to twelve pounds, its surface (sometimes presenting cicatricial bands) exhibiting almost always a shagreen aspect, and sown with granulations so small as to scarcely attract notice; it is of a uniform brown color, like old leather, or rust, or dark red brick, and of very tough and hard consistence when cut; on the surfaces of the section also are perceived smooth and unequal granulations, surrounded by a zone of manifest sclerosis,—the russet coloration is much more evident when the knife is used. The gall-bladder, often normal, but at times atrophied, with thickened walls, contains usually about an ounce of very dense viscid fluid, sometimes normal in color, but again of a blackish or very sombre reddish-brown tint, or, more rarely, colorless. Generally speaking, the spleen is a little hypertrophied and of a russet-brown color—a tint that is also observed in the pancreas, which is pigmented throughout and is very hard and almost atrophied. The supra-renal capsules also exhibit the russet-brown color, sometimes generalized, sometimes especially accentuated in the cortical or medullary substance. The lymphatic ganglia have the same russet color as the pancreas and liver, and are likewise voluminous and very hard. The myocardium is flabby and remarkable for its characteristic russet-brown color; the endocardium also assumes at times a brownish tint. The lungs are the seat of islets of atelectasis, which may also have a russet-brown tint. The salivary glands (parotid and sub-maxillary) are notably indurated and present a very remarkable yellowish-brown color.

The foregoing data justify the conclusion that there is a sclerosis and pigmentary degeneration of all organs, and the color which obtains to all was noted in the thyroid body by Frerichs.

The solar plexus was examined by Massary, who found the right semilunar ganglion of ordinary volume, perhaps a trifle small; the left could not be found, because it was lost in a multitude of ganglia.

Histological examination renders it possible to group the lesions observed in the

majority of cases under two heads of degeneration: Sclerosis, and Pigmentation. The liver is especially noted for the presence of these alterations, where they seem to have attained their greatest extension—their apogee, so to speak. The sclerous lesions are so deep that it has been definitely stated there exists on a given surface almost as much fibrous tissue as glandular tissue. The histological topography of the liver is upset, the lobulation has lost its characteristics, and of the hepatic parenchyma there remain only nodules scattered and crowded in the connective tissue. Sometimes these nodules are rounded and small, but again they are prolonged, scalloped, hollowed out by the sclerosis which penetrates them and breaks them into fragments. These lesions are commonly distributed with perfect uniformity.

The hepatic cellules are infiltrated in varying degrees with yellowish-brown or blackish pigmentary granulations, and present more or less evidence of that degenerative process which has been characterized as pigmentary necrobiosis. Very fortunately for purposes of investigation, the different stages of cellular lesion are represented in the little isles of parenchymatous substance which are closely surrounded by connective tissue; these generally represent the hepatic lobule, according to the ancient conception of Kiernan and Charcot, having for their point of origin the sub-hepatic vein. At the centre the cellules are least altered—are large, less infiltrated with granulations, but at times exhibit fatty degeneration. Approaching the periphery the lesions are more pronounced: the protoplasm is more distinctly pigmented; the nucleus more and more difficult to detect; the color is crowded toward the rim; and in the vicinity of the cirrhotic trabeculæ may be perceived the sum of the alterations—the cellule small, atrophied, of angular contour, completely filled with pigment, the nucleus having entirely disappeared. Certain hepatic trabeculæ present no traces of cellular structure, but are outlined by masses of pigment bounded by clearer spaces. By the side of these sclerous lesions are often found points of the parenchyma of the liver which have undergone the reaction known as nodular hepatitis.

The trabeculæ of connective tissue limiting

the islets referred to are remarkable for their extension and pigmentation. The centres of formation of this sclerosis are clearly defined around the portal and sub-hepatic veins. In brief, there is a bi-venous, annular cirrhosis, attacking the biliary lobule simultaneously at its centre and its periphery, at times specially intense at its sub-hepatic points. Frequently may be found in the midst of the sclerous trabeculæ biliary canaliculi of new formation.

Histological examination of the spleen also reveals the fibrous element considerably enlarged. The Malpighian corpuscles are all victims of the sclerosis; and deposits of pigmentary masses occur in the splenic pulp and, by preference, about the fibrous trabeculæ.

Every histological examination has disclosed a diseased pancreas: all its cells are compromised, though in varying degrees, those occupying the periphery of the acini being most pigmented, many having lost their nucleus and become atrophied and completely necrosed; the connective tissue is found greatly proliferated and surcharged with pigment.

The supra-renal capsules show remarkable pigmentation, especially in the cortical zone, imparting to the preparations a truly artistic appearance by virtue of the sombre scallop which it produces throughout the periphery of the section. In these places the cells are infiltrated and almost superseded by pigmentary masses, while those of the centre are normal; between these two zones shade off all the intermediate ones.

The lymphatic ganglia may be so altered as to render impossible a recognition of their structure. There is much pigment in the cells and in the trabeculæ of hypertrophied connective tissue.

Relatively, the kidneys are healthy; here and there they contain bits of pigment in the cells of the outlined tubules.

The heart presents extreme degeneration of the muscular cells; the inter-fascicular connective spaces are also pigmented.

The lungs present lumps of pigment in the blood-vessel walls, in the thickness of the meshes of the sub-pleural or peri-bronchial connective tissue, and even in the alveolar walls themselves. The right semilunar gan-

glion, in a case examined by Ettinger, presented no lesions.

The histological lesions of the skin have recently been studied by Mossé and Potier, who found very clear pigmentation in the derma, numerous particles of the same being found in the interior of the fine arterial "rainuscules," and also in the cutaneous glands which they infiltrate. In the epidermis the pigmentary substance appears at the profound face of Malpighi's stratum.

Thus it is seen the pigment is diffused throughout the organism, manifestly affecting the glandular apparatus in which it accumulates: it is encountered in the vessels, in the cells, and in the connective tissue; it is, therefore, intra-vascular, intra-cellular, and interstitial. Its form is that of very fine granulations, often accumulated in lumps or in little calculi of from fifteen to ninety or even 120 grains, their color varying according to the thickness of the mass, and shading from pale yellow to the deepest russet-brown. Insoluble in water and alcohol, this pigment resists completely the action of strong acids and of boiling alkalies, thus showing that it is not made up of mere fragments of red globules, but is a true mineral. It gives the following reactions: Placing a drop of sulphurate of ammonia on a fragment of one of the pigmented tissues, it will be seen there is a gradual development of a blackish green coloration which changes to black and deepens at the end of several minutes; subjecting it to the successive action of ferrocyanide of potassium and hydrochloric acid, a beautiful Prussian blue is developed. —The pigment is therefore derived from iron, and accordingly from hæmoglobin. Kunkel considered it a hydrate of oxide of iron, but Lapique and Auscher have recently shown it to be a ferric hydrate, although it has not yet been possible to determine with precision the exact formula and the proportion of water. The pigment is the ochre pigment of MM. Kelsch and Kiener.

But is this pigment the only one whose existence can be established in bronze diabetes? Lapique and Auscher say no, and describe, in addition, a black pigment varying decidedly in appearance and reaction, which they reported to the Biological Society of Paris.

Bronze diabetes exhibits a decided predilection for the male sex, attacking its victims during the second half of adult age, between thirty and sixty.—This commonplace statement summarizes all that is known of the ætiology of the affection. Some, to be sure, have sought to ascribe an important causative rôle to alcoholism, but its absence is explicitly proved in certain cases, and in others it is little noted save with mild symptoms and such as are encountered in the great majority of hospital patients. Inasmuch as under such circumstances the cases are almost exclusively those of alcoholic subjects, it is not surprising that hitherto a great importance has been attributed to alcoholism in the ætiology of bronze diabetes. But nothing is less certain. The influence of the other diatheses at times observed in the antecedents of patients, such as syphilis and malaria, was not at all established.

As a result of these observations, one fact seems to stand out distinctly, viz., that this affection does not arise incidentally at a given moment to complicate a fatty diabetes, but is rather a syndrome, or aggregate of symptoms, of relatively short duration, and attacking individuals whose conditions of life are lacking in comfort.

The pathogeny of this affection is no better known, and will remain the sport of discussion until experiment positively fixes certain points and establishes its landmarks.

When Hanot and Chauffard discovered this malady, they assigned to it a very interesting pathogeny, on the theory that the pigment was the product of a pigmentary dysgenesis of the hepatic cell, and this dysgenesis the result of the combined influence of hyperglycæmia, of its preliminary determining lesion, and of the circulatory insufficiency created by the diabetic endarteritis; formed in the liver, the pigment diffused itself throughout the organism by embolisms. As evidence that they believed the affection to be only of the liver, they wrote of it as "Pigmentary Hypertrophic Cirrhosis in Diabetes Mellitus."

Letulle holds that the pigment is not a hepatic product, but caused by the degeneration *in situ* of the hæmoglobin of the different organs wherein it is seated; that these alterations are the result of the diabetic

cachexia; that the hæmoglobin of the circulation is also altered, as a concomitant lesion.

Associating in their widest meaning the opinions of Mossé and Gonzalez, I incline to the following pathogenic theory: Dissolution of the hæmoglobin, provoked by a general cause as yet unknown: That the visible residue of the decomposition of the hæmoglobin is the pigment: That this pigment infiltrates and modifies the glandular cells (which seek to eliminate it) to such an extent that they lose their functions and become mere pigmentary masses engulfed in the sclerotic tissue,—the presence of these tissues in the heart, and their passage through the vessels with a blood elsewhere adulterated, must be one of the great causes of the sclerosis of the glandular organs: If these glandular organs become incapable of fulfilling their eliminative functions, the pigment, instead of limiting its presence to them, extends over all the organs and the skin.

One hypothesis with respect to the diabetic symptom is that the latter behaves after the manner of pancreatic diabetes—the same sudden début, the same early emaciation, the same fatal culmination. The quantity of sugar is from six to nine ounces, save at the final period when it diminishes or disappears. Further, every time the pancreas has been examined histologically, it has been found profoundly diseased, doubly attacked by sclerosis and pigmentary degeneration. The liver and the pancreas are, therefore, both the seat of profound anatomical modifications. Now, these two organs are "united by a functional correlation so narrow, from the viewpoint of normal, pathological glycæmia, that they are actually considered at the present time as two coupled parts of the glycosoformatory apparatus" (Mossé).

It is therefore probable that this malady is a form of pancreatic diabetes; and since, further, the sclerotic and pigmentary lesions of the glandular organs seem to be secondary, and due to the consequences of the hæmoglobinic decomposition, it may be stated—with some reserve, to be sure, since it is impossible to base a definite opinion on any positive experimental fact—that bronze diabetes is a distinct malady, and not a complication, of which the diabetes is no longer the cause but the effect, and which would be

produced in its entirety by a sanguineous alteration whose determining cause remains unknown. This new conception places bronze diabetes within the great group of maladies with pigmentary lesions, of which it would represent a serious form or an advanced period.

The diagnosis of this affection is easily made when once are found united the three basic symptoms: glycosuria, the abdominal troubles (among which hepatic cirrhosis is the predominating sign and the one most directly perceptible), and the melanoderma. The absolute absence of the glycosuria at any period whatever of the malady must exclude this diagnosis, even in the presence of the other signs, at the present state of our knowledge, or it must at least impose the greatest reserve—whether the affection may not really evolve without sugar in the urine, or whether this symptom may not arise only at a late hour and during a very short period which passes unperceived. The melanoderma is a very important element of the diagnosis: in its absence the malady can only be foreseen, not affirmed.

Several symptoms of bronze diabetes often suggest cancer (primitive or secondary) in the liver. But this idea is soon dispelled by non-appearance of the characteristic nodules or the cachectic complications.

In hepatic syphilis the liver is always irregular, lumpy, sometimes profoundly anfractuose.

Melanic sarcoma may in certain cases almost absolutely simulate bronze diabetes, but in the absence of other signs the melanuric reaction will always serve as a certain pathognomonic symptom.

Malarial cachexia has numerous points of resemblance to bronze diabetes, but the hypertrophy of the spleen is constant and considerable, there are two accesses of stubborn fever, and the color of the skin (which is a dark-brown) differs from that of pigmentary diabetes, which is a leaden yellow, almost bluish.

The melanoderma and the muscular asthenia may suggest Addison's disease; but aside from the fact that the former presents different characteristics, examination of the sugar in the urine and hepatic exploration will finally fix the diagnosis.

Prolonged employment of silver and arsenic salts at times imparts to the teguments a sombre tint which may cause confusion, but error is readily avoided.

Care should also be taken not to give a false interpretation to the melanoderma observed in the unhappy victims of inveterate phthiriasis.

I can say nothing respecting treatment, never having observed any therapeutic measures to exert actual benefit. Anti-diabetic regimen often produces a disappearance, more or less permanent, of the sugar in urine, but without causing any great amelioration in the general course of the malady or in the least retarding the frightful cachexia. It is against the latter that all therapeutic measures must be directed, and for this purpose patients should be as substantially nourished as possible while avoiding the feculents and sugars and adhering as closely as possible to Cantani's regimen of meats and fats. Among the medicaments, theoretically the most desirable are those reputed to benefit nutrition, such as the arsenicals, cod-liver oil, etc.

Paris, France.

CAPILLARY DRAINAGE FOR ABDOMINAL AND PELVIC CAVITIES.*

BY F. W. SAMUEL, A.M., M.D.

It is not my intention to burden this paper with long details of history, nor to discuss pathology and symptoms, but to deal merely with a condition very desirable to be avoided, and yet one that ever confronts the surgeon who operates often.

Case 1.—Mrs. K—, aged 43 years; intra-ligamentous ovarian cystoma. Six years ago Doctor Vandell removed from her an ovarian tumor. One year and four months since, I found her with a tumor in the abdomen about the size of a cocoanut, discovered only a month previously. Health only moderately good. Vaginal examination revealed the tumor impacted in the vagina, filling Douglas' cul-de-sac; uterus wedged up over the pubes.

I operated in April, 1895, and the growth proved to be an encapsulated ovarian cystoma, firmly adherent to the uterus upon the postero-lateral surface, but not adherent to the anterior abdominal wall. Enucleation was

*Read before the Louisville Clinical Society.

accomplished after aspirating, the entire growth being peeled out except that part adherent to the uterus, which was firm from the result of two or three attacks of localized peritonitis, which had apparently obliterated all demarcation between the tumor-walls proper and the capsule. The remaining portion of the cyst was thoroughly sponged out and curetted (attaching the capsule to the peritoneal cut surfaces), then ligated at the base with chain ligature; next the uterus and attached portion of the cyst were walled off by packing, in the form of a large five-per-cent. iodoform gauze bag so arranged as to encircle the uterus and sac, extending from each lateral surface of the broad ligament, and completely filling Douglas' cul-de-sac. The gauze was removed gradually, beginning on the third day; on the seventh day the sac was removed, and strips of gauze were afterwards made use of as drainage. Recovery, though lengthened as to time, was easy and perfect.

Case 2.—Mrs. M——, aged 25 years; broad-ligament cyst of the typical parovarian variety. History of gonorrhœa and several severe attacks of localized peritonitis. The cyst was about the size of a cocoanut, very tender and painful.

After opening the abdomen and tapping, incision was made in the capsule, and the cyst was enucleated. Gauze was used in strips, and also in a like manner as in the previous case, after ligating and cutting off the superabundance of capsule. Recovery easy and complete.

In neither of these cases has there been any tendency to hernia.

Case 3.—Mary S——, aged 27 years; one child. About a year and a half before, she had an inflammatory attack beginning in the uterus, probably from gonorrhœa; had recently been laid up with repeated attacks of localized peritonitis. When I saw her she had severe pain in lower part of the abdomen, localized in the right side over site of the caput coli; abdomen very much distended; temperature 104° ; vomiting, which came on suddenly after a hard day's work. The mass which was felt in the right pelvic fossa was the point of greatest pain and tenderness. I was at first inclined to believe I had to deal with a large encapsulated abscess, due to repeated attacks of appendicitis, with rupture of the appendix, but vaginal examination revealed on the right side a tumor extending into Douglas' cul-de-sac and impacted in the pelvis.

In opening the abdomen I at once came

upon tissues that were adherent; a large abscess in the line of the incision was emptied, the abdominal contents being protected by gauze; then, after working through universal pelvic adhesions, a large pyosalpinx was removed. Hæmorrhage was quite free. The cavity was thoroughly irrigated, and a Mikulicz tampon used. Recovery tedious, with a great deal of suppuration from the tampon tract after ten days.

The patient is now strong and well, and there is no evidence of a hernia.

Case 4.—Man aged 45 years, attacked with severe pain in the abdomen,—appendicitis of a very interesting type. He had never had any pain in the abdomen, and attributed his condition to drinking, the previous evening, a considerable quantity of beer.

Upon opening the abdomen, the appendix was found completely enveloped by the mesentery, and the greater omentum wrapped around it three or four times, thickening the base to the extent of half an inch, the quantity of omentum being very great. The appendix-wall itself was one-fourth inch in thickness, the organ being as large as one's thumb, filled with greenish pus, firmly adherent to every coil of the intestine with which it was in contact, and on the verge of rupture. After being enucleated from the omentum, the appendix was finally isolated so that it could be ligated. Gauze was put over it, as well as around the omental stump and throughout the whole inflammatory area; every part of the abdomen which could possibly come in contact with the infected area was enveloped in gauze, even between the coils of intestine, and so as to secure perfect drainage.

Recovery was slow, and a fæcal fistula resulted on the third day. The dressings, which were removed on this day, were saturated and had a distinct fæcal odor, showing how perfectly the gauze had drained and shielded the abdominal cavity from septic processes. The fæcal fistula, which occurred at the base of the appendix, was covered in, and healed by the fifteenth day. The patient made a complete recovery.

Drainage of abdominal and pelvic cavities is one of the unavoidable evils in peritoneal surgery. The indications therefor have become more and more limited in the past few years, by virtue of the improved methods of surgical work, and this limitation marks the period of advance in the surgery of to-day.

When the glass tube for draining the peritoneal and pelvic cavities was introduced, it

was a great improvement over older ideas, but when the tube was improved by lengthening and bending it where necessary to reach the different and various irregularities of the cavities, it was thought the climax of ideal peritoneal drainage had been attained. But tubular drainage, as understood by Keith and Koeberle, was far from solving the problem of mechanical obstruction in drainage due to the intestines and to gravity. The latter of these difficulties has to a certain extent been overcome by aspiration of the tube at intervals, the former by capillary drainage.

Of the different materials by which it is possible to secure drainage, only one admits of almost universal application, and that is gauze. The glass tube being limited in its application to abdominal drainage, rubber tubing is made use of in conjunction with gauze in vaginal drainage.

The weight of opinion at present is to a certain extent with drainage of the abdominal cavity through the vagina, in certain operations. My experience in drainage by this route is limited to two cases, both pelvic abscesses, and in both it was perfectly satisfactory. It has been claimed that vaginal drainage is more perfect because more in the line of gravity; that there is less pain; that the gauze is more easily removed and excites possibly less adhesion,—this last, however, to my mind, has yet to be proved.

Glass and rubber fulfill the purpose alone of carrying off fluids; but gauze is a substance which not only drains fluids perfectly, but can at the same time be made to act as a hæmostatic, to protect the surrounding tissue from infection, and to stimulate Nature to provide a barrier which is the only protection possible against extension of infection.—Nature by this means limits many septic processes by protecting the body from a general invasion of the morbid virus.

I take it for granted that in the class of cases I have enumerated, it will be agreed that the indications are clear, and that recovery depends upon perfect drainage and protection of the surrounding tissues from infection. These cases, from their very nature, of course demanded abdominal drainage. Now the point upon which I wish to lay especial stress, is, the best method of drainage when there is a septic process or

large cavity from which there must necessarily be, from the very nature of the torn and lacerated surfaces, a large amount of oozing.

In gauze is provided the best means of controlling the bleeding and a most perfect method of drainage when properly applied, and, still more, it affords a means of protecting healthy tissue in the presence of a septic process, allowing Nature time to shut off the pathological fluid from the healthy structure. When it is necessary to drain the abdominal cavity, what are the requirements of a drain in the cavity, and what are the best means of utilizing the same?

The peritoneal cavity being a large lymph-sac, so to speak, the secretory power of which we are unable to estimate, it is patent that when drainage becomes necessary it should be ample and thoroughly capable of removing all the fluid the peritoneum secretes, even when stimulated by any pathological process present; if insufficient, this would be a calamity in the presence of micro-organisms, for their tendency to grow in accumulating fluids is well known.

Again, it is important to remember, when efficient abdominal and pelvic drainage is demanded, that these cavities are not deep and smooth, but made up of many cavities owing to the projections upon their posterior walls; these all collect fluid to be drained, and demand a constant flow externally until the tissue around can be coated with a protective exudate which seals the portal of every avenue that invites extension of the infective agency.

In tubal drainage uncombined with gauze it is necessary to depend upon aspiration at intervals, and it is impossible to drain more than a single area; and with repeated aspiration there is constant danger of infection (secondary) resulting from the removal of the dressings,—Welch has pointed out that this inhibits the bactericidal action of the fluid. With gauze it is different: as much can be placed as desired, or as will deliver to the surface, into the dressing outside, continuously, all fluids that are secreted, and keep the cavity dry without the drawback of constant over-accumulation. Not only this, but the gauze can be pressed into any cavity between the layers of viscera, draining the different collections of fluid. By placing the

gauze absolutely in contact with the infective surface, there is an assurance of immediate removal of the fluid to a safe distance, preventing extension of the infection to the general peritoneal cavity; and the gauze, being soft, does not damage the surrounding tissues. Again, plain aseptic gauze exerts such a slight influence upon the peritoneum, in the absence of bacteria and chemical products, that almost no irritation results.

Kelter-Born lays especial stress on the action of infection as a cardinal factor in producing adhesions, and I might add that the experiment of Bünchner has proven that iodoform provokes a chemotactic action and inflammatory change.

I wish to again mention the ready means at one's disposal by the use of gauze, and the certainty by which infection currents can be diverted from uninfected areas while pathological tissues are enclosed and shut off from normal areas; this last point is of paramount importance when dealing with inflamed structures—such, for example, as an inflamed appendix.

Capillary drainage also acts as an aid to the local cell-resistance. In large cavities which have an immense space, favoring oozing of blood and serum, the gauze is supposed to cause destruction of the peritoneal cells with which it comes in contact, as well as the white blood-corpuscles, thus materially aiding in the arrest of hæmorrhage—another advantage.

In utilizing gauze, the greatest care should be exercised in placing it, in order that it may not be displaced from the surface that it is to protect in septic cases. The length of time it is allowed to remain *in situ* must be decided by the individual case. This may be stated approximately at from twenty-four to forty-eight hours, although it may remain longer; but as adhesive peritonitis soon walls it off, and as its meshes become filled with fibrinous deposit, its usefulness soon becomes limited. If, however, acute inflammation plus infection is present, and the discharge is free, it should remain longer.

In concluding, let me emphasize the fact that in large cavities, when enormous quantities of gauze are employed, iodoform gauze should never be used as the envelope for aseptic gauze, by virtue of the danger of

iodoform intoxication. I may add that in the light of recent research it has been shown that iodoform plays no small part in exciting or causing a tendency to the formation of adhesions, while plain sterilized gauze, in the absence of bacteria, does so to a very limited extent.

I will say that in my brief experience, capillary drainage presents the following advantages over tubular drainage in recent cases: There is very little or no damage to the peritoneal structures: Its action is constant: It acts as a hæmostatic without impairing its virtues as a drain: It is no more likely to cause adhesions than are tubular drains in the presence of the same exciting agents: Gauze, to drain well, must be thoroughly prepared by removing all resin, gum, and oily matters, or its capillary action is limited.

DISCUSSION.

Doctor W. C. Dugan: If there is any one subject in which abdominal surgeons, and surgeons in general, are interested, it is the question of drainage. I use gauze almost exclusively, and, like Doctor Samuel, pack it very carefully. In cases of appendicitis I am not so free in its use, as I fear removal will give the patient unnecessary pain. I have seen some of the abdominal viscera drawn out in removing the gauze, where the cavity was left open.

Recently I operated for tubercular peritonitis, and packed with gauze for its hæmostatic effect, and the hæmorrhage was perfectly controlled. The case drained beautifully for the first twenty-four hours, and I felt sure the cavity was perfectly empty, but to my great surprise there was at least a quart and a half of fluid there. I was careful to pack the gauze into both iliac fossæ, and not only there but in the upper part of the cavity, yet, notwithstanding this, the dressings showed that they had been saturated at one time, but had again become dry and the cavity filled with fluid. Hence it is impossible to rely exclusively upon this form of drain, for (as in this case) it will fail to drain after a certain length of time.

As to the length of time the gauze should remain in the cavity: I operated upon a patient for a large abscess in each side of the pelvis, in the folds of the broad ligaments, and one of the abscesses ruptured during removal. As a means of drainage I trusted to the application of gauze, packing in the cavity carefully, leaving in position from Tuesday

until Saturday. Removal caused a great deal of unnecessary pain, and the gauze was thoroughly coated with lymph.

While I am willing to endorse everything Doctor Samuel has said about capillary drainage, I realize one is sometimes forced to use other means.

Doctor W. H. Wathen: It is often difficult to decide whether to drain with gauze, with tubes, or with both methods combined. It is not believed that gauze completely removes septic matter from the cavity; its good effect is more in the removal of liquids and shutting-off of the area of infection from the healthy peritoneum until nature can throw out a protecting layer. I hardly agree that there is less injury to intestines by gauze than by tubular drainage, for the reverse has been my experience; it will be found that within twenty-four hours after placing gauze in the peritoneal cavity, the outer layer (if the Mikulicz method is employed) will be so firmly adherent to the peritoneal covering of the intestines that its withdrawal will cause great pain, possibly injury, or even pull the bowel out along with it—faults that do not pertain to tubular drainage. I have also observed when gauze is employed that suppuration follows in the drainage tract much more frequently. But if there is more danger of traumatism to the peritoneum by using gauze than by tubular drainage, nevertheless one is at times compelled to use the former in order to give the patient the best protection. Tubular drainage, while it has some hæmostatic effect by keeping the peritoneum dry—the oozing surface being comparatively dry by reason of the liquid being taken away by suction,—does not have the same hæmostatic effect that is secured by actual pressure by gauze, and by the action of iodoform upon the oozing surfaces. In applying gauze drainage where it is desired to control hæmorrhage, or to shut off an area of infection, one should be careful to remove every particle of the intestine from the field he wishes to protect; and when he places the outer layer of gauze and presses it down to the bottom of the wounded surface, he should be careful he does not push the forceps through and injure the intestines or bladder. But if a blunt-pointed glass tube is employed—such as is used for irrigating the cavity in laparotomy work—he will find the gauze can be pushed down in every part of the pelvis without injuring any of the viscera. I think it is best, when gauze must be used, to introduce also a glass drainage-tube if possible, so as to get the full effect of both methods.

Doctor Louis Frank: Granulation tissue may grow into the outer meshes of the gauze,

and consequently removal may do a great deal of damage. If gauze is left for any length of time it may necessitate breaking up of intestinal adhesions, making a fresh open surface for infection to be carried to the peritoneal cavity. There is also danger, unless the gauze is used very carefully, of producing strangulation of the intestine by pressure. Where drainage alone is desired—where there is no attempt to prevent hæmorrhage, and where it is not considered necessary to protect the balance of the peritoneal cavity from septic infection—the tube is preferable to gauze. Where possible, I believe it is better to use the two methods of drainage combined.

Doctor Samuel: Gauze drains far better than tubes. By leaving the ends of the gauze long, drainage will be almost perfect; but generally the gauze is cut off too close. In cases where I have been forced to leave gauze in the cavity for a long time, I have found granulations growing into the meshes, and it is removal after this has occurred that is liable to produce a breach in the surface that will permit infection. But in drainage by the Mikulicz method—in which the iodoform bag is attached at its centre to a string, and pulled up from the bottom from off the surfaces—there is less danger of breaking up the granulation surfaces than there would be from simply stuffing in a piece of separate gauze without any special method. When the gauze is placed in this bag, the latter may be driven in any direction desired.

Louisville, Kentucky.

ENORMOUS ANGEIOMA.

BY A. M. CARTLEDGE, M.D.

I recently operated upon a patient twenty-seven years of age, robust and healthy, for venous angioma of the outer side of the left leg and thigh. This angioma was enormous, and originated in a large nævus just above the knee. One section of veins removed was fourteen inches in length.

The case is a very remarkable one, and I really think that, instead of dissecting out these veins, the leg should have been amputated; certainly, if I encounter another such a case, I shall recommend this operation. Thirty-eight ligatures were required, and at least fifty more should have been applied, as it was impossible to control the hæmorrhage perfectly. The blood-supply was simply enormous. The vascular neoplasm extended

from four inches below the trochanter to the foot, along the outer side of the limb. The man is still living, though he has passed through a severe sepsis, the result of thrombophlebitis and sloughing of the skin-flaps. If he ultimately recovers he will have a useful limb.

Louisville, Kentucky.

OPERATION WITHIN BLADDER BY MEANS OF CYSTOSCOPE.

BY AP MORGAN VANCE, M.D.

Two months ago I removed a suture from the bladder of a young woman who was operated upon last June for an abscess of the right ovary which had opened into the bladder, a great deal of pus having been discharged from the latter viscus. Loose in the sac was a solid tumor the size of a walnut, which seemed to be a teratoma. In removing this mass the bladder had been still further opened, making a wound perhaps two and one-half inches in length. The wound had been closed by a continued silk suture, the cavity packed with gauze, and the woman put to bed. Those who saw the patient thought she would certainly die; however, she convalesced and has been getting along fairly well since, though the abdominal wound has never closed. The ligature which was used to tie off the tube and sac passed out through the abdominal wound. A permanent catheter was placed into the bladder.

The suture and several small calculi were removed from the bladder by the method proposed by Doctor Kelly, through a speculum, and by the aid of an electric light suggested by Doctor Blue, of this city. The latter device consisted of an ordinary battery such as is employed by ophthalmologists, the wires being attached to the reflector and a small incandescent bulb; this was placed on the head, whereby both hands were left free. By introducing one of the special specula devised by Doctor Kelly, I was able to see all of the bladder necessary—including both ureters—and the stitch, covered with calcareous matter, was found hanging from the posterior wall. The calculi were removed by means of a little instrument devised on the spur of the moment from a long probe,

the stitch being grasped and drawn into the end of the speculum. The method employed for suturing the bladder wound struck me as being very unsatisfactory. The wound was at the base, and the raw surface from which the sac was removed prevented the approximation of peritoneal surfaces.

The vesical irritation was such before the operation that the patient could not hold the urine more than five minutes at a time, and she can now hold it for four or five hours. I believe she will finally make a complete recovery, for since the stitches were removed from the bladder the sinus is rapidly closing. A few days since another calculus was removed *via* the urethra, having formed since the stitch was removed; it was about the size of a chestnut.

I make this report merely to bear witness to the possibility of bladder exploration by the method introduced by Doctor Kelly, with the aid of the electric light devised by Doctor Blue.

Louisville, Kentucky.

Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

DISEASES OF HAIR AND SCALP.

Editor MEDICAL AGE:

In considering preparations applicable for tonsorial and cosmetic purposes, and after considerable experience in the treatment of dandruff and the several eczemas that produce so much personal distress to the sufferers therefrom, I am led to believe that Euthymol and Johnston's Ethereal Soap hold positions unoccupied by any other of the vast number of topical and systemic remedies.

In dandruff, for instance—due, in the opinion of the writer, to a constant acid condition of the blood resultant from more or less severe chronic gastritis, unintelligent diet, and lack of proper hygienic habits—these remedies are especially satisfactory. The best method, in the experience of the writer, is to first wash or shampoo the head with from one to four drachms of Johnston's Ethereal Antiseptic Soap (according to the growth of hair) rubbed in clear, applying water to make a suds; then rinse the head in clear water. This removes the separated skin surface or epithelium and accumulated filth, leaving the scalp and hair thoroughly

clean. After the head has been thus cleansed, one or two drachms of Euthymol should be thoroughly rubbed in. No other local treatment is necessary, the hair being left soft and glossy and easily brushed without any other oleaginous application. It is not intended to assert that these preparations are hair-growers, the condition requiring such treatment being naturally dependent upon systemic disturbances within the field of specific treatment; although as an aid to the intelligent efforts of the physician in this respect, they will be found of immense value, as they stimulate the scalp and *promote*—not force—the growth of the hair.

Either of these preparations used after shaving will be found beneficial and luxurious, in that they immediately allay the irritation and soreness of the face resultant from a tender skin or a dull razor. Further, their use after shaving is a certain preventive of barber's itch and kindred skin diseases. As a rapid and sure insecticide—destroyer of pediculi—Johnston's Ethereal Antiseptic Soap is unapproachable.

Besides their cleansing and cosmetic properties in the treatment of dandruff, the use of Euthymol and Antiseptic Soap is followed by a sense of cleanliness and comfort so superior to that produced by the ordinary shampoo that a call for repetition is assured.

CHAS. B. ATKINSON.

New York City.

NUCLEIN.

Editor MEDICAL AGE:

A lady of a tuberculous family history has complained of ill-health since February, 1895. I saw her early in March, when I found an area of dullness in the apex of the right lung, cough, expectoration, wasting, night sweats, temperature in evening averaging 100.5° , pulse 100 to 110, loss of appetite and flesh, and all the symptoms of tuberculosis. Began to treat her with nuclein, and during March, April, May and June gave nothing else. Began with ten minims, increasing three minims per day until the dose reached eighty minims.

The first change that occurred was a fall of temperature, followed by general symptoms of improvement, increased appetite, etc.; the area of dullness in right apex gradually cleared so that by July 1st it was impossible to detect anything wrong with the lung. She left me about this time, but is now visiting friends and writes she is "all right." I think a cure was effected. The injections were intra-muscular (pectoral muscles and muscles of the back), and there were no abscesses,

though after one injection there was a slight redness that lasted until morning. Her pulse for a long time before she went away ranged from 60 to 64; appetite fair; slept well; able to take exercise without any shortness of breath.

In another case, aged nineteen, the apex of the right lung was slightly consolidated; breathing broncho-vesicular; temperature 99.5° in the evening; cough, expectoration; some râles over that portion of the lung,—considerable cough and expectoration in the morning. Put upon nuclein, ten minims at first, doses rapidly increased up to ninety minims (hypodermatically). In two weeks he had gained two pounds; cough and expectoration were less, particularly in the early morning; physical signs unchanged. Examination of sputa showed tubercle bacilli.

N. F. CUNNINGHAM.

Dartmouth, Nova Scotia.

TAKA-DIASTASE.

Editor MEDICAL AGE:

A couple of months since a patient came to me suffering from amylaceous dyspepsia in distressing and aggravating form. Some constipation, pain after eating, frontal headache, etc., were among the symptoms, but the most distressing of all was the vomiting which came on shortly after each meal. During the past two years, she informed me, she had not had a score of meals of which a part at least had not been rejected. Marasmus, as a consequence, was marked, the patient being extremely thin and ill-nourished.

It occurred to me that if she had been under medical treatment during all this period, probably all the standard remedies had been tried; consequently it was a case in which Taka-Diastase would be given a very severe and definite test. I ordered thirty-two two-grain doses to be taken, one after each meal.

When she again appeared I naturally did not expect a satisfactory report; nevertheless to my surprise she informed me that after the third dose had been taken there had been no more vomiting, no more pain, but very trifling headache at most, and that she felt a "free woman." She was very profuse in her gratitude.

At this writing some three weeks have elapsed since the patient took the last dose of Taka-Diastase, and she is now assimilating good nourishing diet and taking Blaud's pills.

Another case, of less duration and intensity but unmistakably of the same nature as the foregoing, was relieved in a little longer time

—about fifteen days,—all but the headache, which still continued to be intense; but this latter, I have discovered, is due largely to “eye-strain.”

Of course I do not expect such results invariably, nor shall I prescribe Taka-Diastase universally in all cases of indigestion, but it appears to me to be the most available remedy where the trouble is lack of digestion of starchy foods.

Very truly yours,

F. H. WELLS.

Port Elgin, Ontario.

NUCLEIN IN TYPHOID AND PNEUMONIA.

Editor MEDICAL AGE:

Permit me to narrate my recent experience with nuclein.

I was first tempted to try this medicament in an apparently hopeless case of typhoid, after observing its striking benefits in other maladies. With the assistance of the interne of St. Mary's Hospital, in this city, I gave it a very thorough trial, reserving its use, however, for the more severe and virulent cases. It was employed as an abortive in “first-week cases,” the total series of which numbered sixty. There was not a single death among the sixty cases, and in forty-two of these nuclein was the chief remedy employed.

Even more striking were the results accruing to nuclein in pneumonia. During three months it was employed in ten out of fifteen cases, with but one death. In one case the right apex was involved, and the patient was out of hospital but a week when he returned again, this time with the left apex inflamed. He was again put upon nuclein, with the result that a favorable crisis occurred on the eighth day.

I have made a more complete and elaborated report of these cases of typhoid and pneumonia to the Secretary of the State Board of Health.

Very truly yours,

F. HARKIN.

Marquette, Michigan.

A WISE MEASURE.

In New York the exposure, in front of or within a store, of fish, game, meat, or poultry, is prohibited under a penalty of from \$100 to \$500. A law of this kind should be in operation in every State; the dangerous practice of decorating the exteriors of markets with quarters of beef and the carcasses of lambs, calves, pigs and poultry should cease.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., APRIL 25th, 1896.

Editorial.

AN OLD CRIME REVIVED.

When the Buchanan institution was broken up in Philadelphia, it was supposed the “diploma mill” business had been pretty thoroughly squelched; nevertheless a new institution crops up now and again in one or another part of the country. The latest appears to be in Chicago—right under the eyes of the Illinois Board of Health, which is supposed to conserve the medical morals of the “Windy City” and also of a great commonwealth. We are in possession of a pamphlet and circulars heralding the opportunities offered by a “University” which is “opposed to the absurd, unjust and unreasonable rules adopted by certain medical colleges, compelling students to attend a certain number of years before they are granted a diploma conferring the degree of M.D.,” etc. These documents purport to outline “a system of education [?] at home,” including examination *in absentia*. This elegant concern, under the caption of “Important to Under-graduates,” adds:

Many otherwise splendidly equipped physicians are heavily handicapped by the fact that they have no diploma, and have never received the degree of M.D. This fact leaks out, often the report is started by some competitor who may have no qualifications but a sheepskin, and the Doctor who has no diploma finds his business seriously crippled. Nine times out of ten the cause of this is the rumors we have mentioned. Had the doctor been wise enough to have a neat diploma hanging where his customers could get an occasional glimpse of it, these rumors would all have been contradicted.

Our charter from the State of Illinois authorizes us to teach the true art of healing, and to those

qualified grant diplomas, conferring the degree of M.D. the same as any other American or European Medical College, and in addition, we act in connection with a Medical Society which grants certificates of qualification to those particularly well qualified. Thus we believe bringing them fully up to all the present legal requirements in some eight or ten great States. We also further believe that where one has fully complied with all the legal requirements in any State, no law could be held constitutional that would disqualify them for practice. We enclose you our Annual Announcement and will be pleased to answer any questions not answered in same. To those who have never studied medicine the opportunities we offer deserve careful consideration.

N. B. We can give parties desiring to avail themselves of these advantages the benefit of them without the expense of a journey here. The questions on the sheet can be answered in any of the following languages: English, French, German, Spanish, Italian, Dutch, Swedish, Norwegian, Danish, Flemish, Bohemian, Russian, Japanese, Malay, or Arabian.

Next follows the statement that:

A great many men and women have, by reading and practice at home, acquired a better medical education than many M.D.'s who have spent years in college. Send proof that you have practiced successfully, and this will excuse you answering many of the questions. Those that have not made any preparation will require considerable time to fit them for the practice of medicine, but by the proper course of study, and reading the proper books, they can be fully equipped much sooner than many suppose.

Then come the examinations to qualify for graduation, as follows:

Define Anatomy, Physiology, Hygiene, Materia Medica, Therapeutics, Obstetrics, and Surgery, and mention ten important facts relating to each branch that a physician should know in order to be a successful practitioner; also give reasons substantially proving that the facts mentioned are of genuine benefit and absolutely essential in the treatment of the different forms of disease. To illustrate: A student might be able to name every bone and muscle in the body, and make an entire failure in treating simple cases, while one who did not possess one-tenth of said knowledge might succeed. We want you to possess the knowledge *that will enable you to cure your patients*. No amount of superfluous nonsense so extensively taught in Medical Monopoly Colleges and called "Medical Science" will fill the bill. Carefully dissect every fact given in your answers, and ask yourself the question: Will said knowledge *actually* enable me to cure my patients; if not, what knowledge can I acquire that will, and what is the quickest way for me to acquire it?

Outline your treatment for the following forms

of disease and state what medicines, "if any," you would give in such cases, or on what you would chiefly rely to effect a cure: Asthma, Bronchitis, Cancer in the first stages, Croup, Diarrhoea, Diphtheria, Dropsy, Dysentery, Dyspepsia, Epilepsy, Erysipelas, Inflamed Eyes, Fits in Children, Gravel, Headache, Hip-joint Disease, Hydrocele, Hysteria, Insanity in the first stages, Typhoid Fever, Jaundice, Malaria, Neuralgia, Paralysis, Piles, Pleurisy, Polypus, Nervous Prostration, Rheumatic Fever, Rheumatism, Sciatica, Scrofula, Sleeplessness, St. Vitus' Dance, Ovarian Tumors, Fibrous Tumors, or any other forms of disease you have treated or think you can treat successfully.

Name ten remedies that you consider good medicines to give to the sick, and describe their medical properties. On what do you chiefly rely to effect cures?

What do you understand by the Allopathic system of medicine, and do you approve of it? If not, why? What system do you approve of? Answer same questions in regard to the Homœopathic, the Eclectic, Physio-medical, and Hydropathic systems.

Do you consider it in accordance with science, reason, or common sense, to give to the sick such agents as arsenic, strychnine, morphine, calomel, aconite, digitalis, and the numerous poisons so extensively used in medical practice?

State what medical books you now own and have studied, length of time you have spent in the study of medicine at home, under a preceptor, or in a medical college. Name college or colleges attended, if any, and state any other facts going to show what opportunities you have had to become a competent practitioner.

If you have practiced, state number of years, and send if you can sworn statements from patients to the effect that you have treated them successfully, especially send affidavits of cures effected by you after "so-called" highly educated medical monopoly college graduates failed.

State if you consider yourself qualified to conduct a safe practice. If you will carefully of your own knowledge "alone" answer said questions to the best of your ability, and we should consider you deficient in some respects, we will carefully point out said deficiency and how to acquire the knowledge you lack in the shortest time.

Send letters of recommendation from three or more prominent and responsible citizens as to your moral standing, and, if you have practiced, as to your professional ability. Have answers typewritten if convenient; if not, write plainly on legal or foolscap and make affidavit as follows:

I [name in full] do solemnly swear that the foregoing are my answers to the questions asked me by the Faculty of the Illinois Health University, and are given of my own knowledge without copying from books or without any assistance but my own mental faculties, and that said knowledge has been acquired by a careful study of medical works and by my own experience, and that the other statements therein contained are true to the best of my knowledge and belief.

Have statements and answers sworn to before notary public and mailed to us.

The boldness with which this institution advertises is astonishing. The "Annual Announcement" thereof, along with the explanatory circulars, is being distributed broadcast throughout Michigan and Ontario—in every instance, so far as we can discover, being forwarded to the most illiterate persons that can be found in any one community.

In order to further test the character of this "University," we caused to be mailed to the president thereof a badly written letter—one which contained not a single capital, and of which no word of more than four letters was correctly spelled,—deeming this would best secure the literature of the concern. As a result, the assurance was obtained that there would not be the least difficulty in securing a legalized degree without ever visiting the "University." Further, the concern was at particular pains to point out what States furnished safe pastures for the holders of such degrees as it furnishes.

We commend this institution, which is located right in the heart of Chicago, to the attention of the medical profession of that city.

A DISGRACE.

In February last the *Medical Press and Circular* (London) called attention to the fact that American publishers were continually plagiarizing English works, adding that a certain System of Surgery recently issued was discovered to be most pronounced in its lack of anything to which the adjective American could be applied; indeed, the plagiarism was so marked that the sale of the work was prohibited in Great Britain "and the volumes promptly returned to the home of their birth." Our contemporary further sarcastically remarks:

Of course this might have been a mere coincidence, and the American authors might not have known of the existence of the English works, but they will, perhaps, pardon our suggesting it would have been more straightforward had they issued the work as an American System (not of surgery); we should have understood that here.

It is certainly a national disgrace when medical publishers and medical authors resort to such dishonest methods. There is

not a shadow of excuse therefor, since there are sufficient authors possessed of abundant ability and standing—likewise material enough—to make a purely American volume upon surgery, or any allied topic, if such is needed. But we do not see why there should be any purely "American" work, since neither medicine or surgery is sectarian or limited by geographical boundaries. It matters not whence *truth* is derived, whether from this or from the other side of the Atlantic; and if the adjective "American" is employed as a trademark merely, it certainly is not at all creditable in any sense to the profession on this side of the Atlantic, as it tends to confirm the belief, already too prevalent abroad, that the United States is the hot-bed of charlatanism.

The declaration has been repeatedly made during the last quarter-century that in all this time there has not been put forth a single original work of size or note by an American author. This we are obliged in a measure to admit, though the recent volume on Pediatrics, by Doctor Rotch, of Boston, has "broken the record." For the stealing of the "thunder" of others, and palming it off as one's own, we have already intimated there is no measure of excuse; and why this should be, is beyond our ken, since to any one possessed of a thimbleful of brains it must be patent that detection is sure to follow. No doubt this is one of the results of the pernicious system inaugurated of late years, whereby each publisher endeavors to put out a work on parallel lines with every one issued by his competitors, and moreover to force the sale of these works through agencies, the recommendation of medical-college faculties, and by other reprehensible means; such cannot but lead to bad work, ignorant authorship, and has deprived the profession almost wholly of reliable text-books—notoriously if is required a *text-book*, in the full acceptance of the word, it must now be imported. Again, in order that the publishers may secure proper remuneration for this extraordinary strain upon their resources, it is found necessary to employ the cheapest talent available as authors and editors—which means young men who are lacking in practical application and literary experience.

Too many books are published, and the

consequent glutting of the market has worked the greatest possible harm to medical science, and has steadily tended to lower the standard of education. The majority of volumes are not only hastily, superficially, and even ignorantly compiled or edited, but they contain such a vast amount of irrelevant, contradictory, and ill-digested material that the young practitioner finds himself continually at sea regarding things which a quarter of a century ago were matters of definite information. Further, he is financially crippled by being forced year after year to purchase new series of works simply because he is led to believe these are essential to "keeping abreast of the times." Good works of the type of Tanner's Practice of Medicine, Watson's Physic, Druitt's Surgery, Playfair's Obstetrics, Warring's or Wood's Therapeutics, which were classics in their day, are entirely out of fashion, and in their stead are offered books of mere jumbles, each by a score of authors, wherein scarce one writer is competent to teach even the rudiments of that for which he poses as authority.—This is not to say there are not a few good compilations that are valuable in their way; but these are not text-books in any sense of the word, and are fit for reference only. Plagiarism is by no means the most pernicious feature. Works of the class indicated foster a demand for cheap "cram books" whereby the medical colleges, in spite of longer sessions and more elaborated curricula, send forth graduates far behind those of thirty years ago in practical knowledge. Latter-day graduates have, to be sure, a wide smattering of crude theories, but their noddles are overloaded with a mass of rule-of-thumb rubbish that requires years to get rid of, and handicaps to a degree that can hardly be appreciated.

Said one of the ablest of American practitioners and authors recently:

Formerly it required half a decade to divest the student of accumulated and undigested medical rubbish acquired at college, and to find himself at best but a misguided fool and egoist; but now half a century will scarce suffice to render the same service to the modern graduate.

The accusation made by the *Medical Press and Circular* has been reiterated by a number of medical journals, and we must confess a

critical examination reveals more than a modicum of truth in the charge. We also observe some publishers are making use of it to belittle their rivals, whereas as a matter of fact there are very few houses who may not cry *peccavi*. That the publishing house is always at fault, is not to be imagined—they merely accept what is furnished them by authors; but where they especially merit condemnation is, that in the endeavor to multiply volumes and to head off rivals, they tempt young authors and editors to the very crime which our brethren across the water so freely charge.

AN ACTIVE PRINCIPLE OF THYROID.

Fränkel, of Vienna, claims to have isolated an active principle from the thyroid gland with which he has paralleled the experiments of Haskovetz, producing similar effects on the circulation; by experimental tests he has demonstrated that this active principle is the therapeutic equivalent of the fresh extract. Though he has not yet completed the study of its chemical constitution, he nevertheless believes it to be a pure chemical body with well defined chemical properties, and that can ultimately be reproduced synthetically. It is held to be present in considerable quantities in the gland substance, and to be unmistakably the agent that contains all the therapeutic properties of the thyroid.

All of which is very interesting if true, but the evidence thus far offered is very far from being convincing.

NATURAL-HISTORY HUMBUGGERY.

Several American as well as one French journal have been led astray by the usual style of romance concocted by the newspaper reporter, to the effect that a physician of San Francisco recently succeeded in grafting two snakes together by the tails. The fictitious character of the narrative was demonstrated by the statement that said physician selected snakes in which the vertebral column did not extend to the tail.

Probably the *canard* originated from the statements recently made regarding so-called glass snakes, that they may be "broken, and that they "afterwards mend themselves

to their tails." Although this statement has been doubted, it is nevertheless a fact, and is likewise true of other lower forms of life, notably certain of the lizard and tick tribes. As a matter of fact the so-called glass snake is not a snake, except superficially to the eye, but is in reality a lizard; the rudimentary legs are to be found just within the skin, and the mending process is impossible except when the creature is divided within that portion of its anatomy which practically represents its tail.

EDITORIAL NOTES.

What is a "New Woman?"—

The Gentlewoman offered a prize for the best epigrammatic definition of the new woman, and among the many replies received were:

The old maid trying to be a young man.

Six of one and half a dozen of the other.

A creature of opinions decided, and skirts divided.

One who has ceased to be a lady, and has not yet attained to be a gentleman.

Man's newest and best reason for remaining single.

Madam became Adam.

Mannishness minus manliness.

The palm, however, was awarded to the following: "A fresh darn on the original blue stocking."

The Future of the Pharmacist.—

According to a Chicago evening paper, the drug store is destined ere long to be among the things of the past. We are assured "the corners will all be taken by saloons, or other kinds of business that are more profitable than the retail drug trade, and the druggist will go up-stairs. The patent medicines and side lines will go to the cut-rate and department stores, when the pharmacist will be merely a dispenser of prescriptions."

Overfeeding.—

Gavage has been extensively tried in typhoid fever, along with the host of other new procedures; and though the first reports seemed favorable, it is now said this—or any other—attempt at forced nutrition is exceedingly provocative of tympanites.

Items and News.

Bravery of a Medical Man.—

The late disastrous explosion at Tylors-town, South Wales, was the occasion of much courageous rescue work. Among other noteworthy incidents of the kind, we are pleased to chronicle the bravery of Doctor Thomas Morris, the medical officer of the collieries where the disaster occurred. As soon as the state of the gearing permitted the descent of the rescue party, the Doctor went down and spent the whole day underground, where he did much service among the injured survivors. In the afternoon he was summoned to a wounded man who lay a mile and a quarter along one of the workings. To reach him the Doctor had to scramble and struggle as best he could through many parts of the wrecked workings. The injured man was unconscious, and was kept alive by artificial respiration, conducted at intervals on the wearisome and dangerous journey back to the pit's mouth. The workmen of the district at a local meeting passed a resolution thanking Doctor Morris for the noble efforts he had made in the work of exploration, and in saving the life of the collier Phillips. This kind of heroism is less conspicuous, but not a whit the less sterling, than deeds of derring-do upon the battle-field.—*Medical Press and Circular*.

Relative Digestibility and Nutritive Value of Oleomargarine and Natural Butter.—

Although the statements made as to the relative food value of natural butter as compared with oleomargarine have varied, the general outcome has been that, while there was not much choice between them, yet, as a whole, butter had a slight advantage. This has led Doctor Adolph Jolles (*Sitzungs-Berichte der Kaisl. Akademie in Wien*) to carry out a long series of observations upon dogs fed during four consecutive periods alternately with natural butter and with oleomargarine. From the results of this experiment, in which proper care was taken to have all the conditions similar, it appeared that natural butter and manufactured oleomargarine had practically identical coefficients of digestibility and nutritive value.—*Scientific American Supplement*.

Knew His Lung.—

Syme, the eminent Scotch surgeon, and professor in Edinburgh University, was entirely devoted to his profession. The poet Tennyson at one time consulted him for some

affection of the lungs. Years afterward he returned on the same errand. On being announced he was nettled to observe that Mr. Syme had no recollection of his face, and—still more galling—apparently no acquaintance with his name. He thereupon mentioned the fact of his former visit, yet Syme failed to remember him. When the latter put his ear to the poet's chest, and heard the peculiar sound which the old ailment had made chronic, he at once exclaimed, "I remember you now! I know you by your lung." Can one imagine a greater humiliation for a poet than to be known, not by his verse, but by his lung?—*Montreal Star*.

Our Advancing Physician.—

Great are the achievements of contemporary science in the department of therapeutics. Just now the medical novelty seems to be the pursuit of the microbe. It is carried on with an ardor that sometimes makes both laymen and doctors smile. One hears such stories as that of a man who went to his physician with a slight sore throat, left a little of the lining of it to be examined, got a gargle, and went home. That night he went to the theatre, but was called out in the middle of the performance and told that the membrane from his throat had diphtheritic microbes in it, and that he must go home, which he did; but all the folks with sore throats in the audience who happened not to have seen a physician stayed the show out.—*Harper's Weekly*.

A Remarkable Lump of Ambergris.—

Some little excitement has been recently caused among London perfume dealers by the appearance of another "monster" lump of ambergris upon the market. It was received in a recent consignment from Fiji, and measures 32 inches in circumference at its widest part, weighing 284 ounces. The bulk of the piece is of a gray color, but it contains three "hearts" of a fine pale silver-gray, which form its most valuable portion. It is valued at £1350 sterling.—*Bulletin of Pharmacy*.

Marriage in England.—

The law permits boys of fourteen to espouse girls of twelve, but the common sense of the community has brought it about that the average age of first marriages is 26.55 for men and 25.04 for women; or, taking five-year periods, that the largest number of men marry between twenty-five and thirty, while the largest number of women marry between twenty and twenty-five.—*The Hospital*.

Love's Anatomy.—

My subclavian fossa disgusts her,
She scorns my parietal bone,
Yet sweet is my love as the morning
That breaks in a tropical zone.
To her I will bend my patella,
On her fix my optical ray;
In thinking of her my medulla
Will wear all its "pia" away.
Yet, tho' perish my poor oblongata,
And the pith of my ossa decay,
Still to me she's the *persona grata*
I most like to find in my way.

—*Fun* (London).

The Collar Exploded.—

A brakeman on the Erie Railway caught a spark on the back of his celluloid collar as his train entered a station; the collar took fire and exploded with a loud report. He seized the collar with both hands and tore it from his neck, and thereby was burned severely on the face, neck, and hands. He will be disabled for some time.—*Scientific American*.

A Common Complaint.—

Brown: "You don't look well, lately, Robinson."

Robinson: "No; I can't sleep well at night on account of lung trouble."

Brown: "Nonsense; your lungs are all right."

Robinson: "Yes, mine are; the trouble is with the baby's."—*Life*.

It is, Indeed!

Ex-baby: "Mamma, where did the baby come from?"

Mamma: "From heaven, my darling."

Ex-baby: "It's a pity the kid didn't know when he was well off."—*Fiber and Fabric*.

Freckles.—

Hebra insists that the sun does not produce freckles. They never appear, he says, in the new-born or in children under the age of six or eight years, whether exposed to the influence of the sun or not.

Healthiest Spot in the World.—

This appears to be a little hamlet in France named Aumone. There are only forty inhabitants, twenty-three of whom are eighty years of age, and one is over one hundred.

Unfinished.—

Willie has a critical eye, and, finding the new-born baby without teeth or hair, insisted that baby was unfinished, and another doctor should be employed.

Book Reviews.

THE YOUTH'S COMPANION. Price, 5 cents; \$1.75 per year. Perry Mason & Co., Boston.

Among the million readers of the *Youth's Companion*, not a few gray-haired admirers will recall with some amusement the earlier days of this publication, and the literature which was offered to boys and girls of three generations ago. Except for the name and high purpose of the paper, the little leaflet first published in the Easter season nearly seventy years ago cannot be compared with the splendid product of the literary, artistic and mechanical skill of to-day. To trace the successive steps by which the *Companion* has reached its present high standing and is able to employ the very best talent, literary and artistic, would be to interest students of evolution in a great modern periodical. We commend this journal as an example of what may be accomplished when facilities are well-nigh perfect and there is a determination to excel; and especially recommend it to the household, since it presents a standard of cleanliness and purity absolutely unsurpassed by any other weekly.

THE AUK. Price, 75 cents; \$3.00 a year. Published for the American Ornithological Union, by L. S. Foster, New York.

The April number of this ornithological quarterly is more than usually interesting: William Palmer writes of "The Florida Ground Owl;" F. A. Lucas of "The Taxonomic Value of the Tongue in Birds;" F. A. Merriam of "The Birds of Southern California;" A. H. Thayer upon "The Law which Underlies Protective Coloration," handsomely illustrated by plates from photographs; L. B. Bishop of "A New Horned Lark and a New Song Sparrow, with remarks on Sennett's Night-hawk;" G. K. Cherrie on "An Apparently New Chordeils from Costa Rica;" J. A. Allen on "Gatke's Heligoland;" W. S. Stone on "Revision of North American Horned Owls, with description of a New Species." There are the usual departments devoted to recent ornithological literature, general ornithological notes, correspondence, notes and news, etc.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 a year. The Edwards & Docker Co., Philadelphia.

The *March* issue contains: "The History and Principles of Geology and its Aims," by J. C. Heartzell, Jr.; "The Constancy of Bacterial Species in Normal Fore Milk," by H. L. Bolley; "Life before Fossils," by

Charles Morris; "Birds of New Guinea" (fly-catchers and others), by G. S. Mead.

That of *April*: "The Bearing of the Origin and Differentiation of Sex Cells in Cymatogaster on the Idea of the Continuity of the Germ Plasm," by Carl H. Eigenmann; "History and Principles of Geology and its Aims" (continued), by J. C. Heartzell, Jr.; "Life before Fossils" (continued), by Charles Morris; "Birds of New Guinea—Fly-catchers and Others" (continued), by G. S. Mead.

In both issues are the usual departments devoted to Petrography, Geology, Paleontology, Botany, Zoölogy, Entomology, Embryology, Anthropology, Vegetable Physiology, Psychology, Scientific Literature, etc.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

The issue for April contains: "The Old Olympic Games," by Allan Marquand; "Arbicide," by Louise I. Guiney; "Sir George Tressady" (vi), by Mrs. Humphry Ward; "The Ballad of the Laughing Sally," by Charles G. D. Roberts; "Life of Napoleon" (continued), by William M. Sloane; "Four Lincoln Conspiracies," by Victor L. Mason; "The Mutiny on the Jinny Aiken," by H. P. Whitmarsh; "The Churches of Péri-gueux and Angoulême," by Mrs. Schuyler van Rensselaer; "Japanese War Posters," by D. P. B. Conkling; "The Delights of Art," by J. G. Vibert. There are the usual departments: "Topics of the Time," "Open Letters," and "In Lighter Vein."

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The principal papers in the April number are: "The Advantages of Fiction," by Maxwell Grey; "Evolution of Editors," by Leslie Stephen; "Natural Antidote to Pessimism," by Davis Pryde; "Enduring Characteristics of Macaulay," by Thomas Badfield; "Christmas on the Nile," by W. W. Hunt; "The Soft Sex," by Mrs. Hawes; "Recent Science," by Prince Krapotkin; "Concerning Prigs," by Maxwell Grey; "George Eliot Revisited," by W. E. Russell; "Some Seventeenth-century Matrons and their Housekeeping," by Margaret Verney; "On Guard," Anon.; "Some Judges;" "The Way to the North Pole;" "Pastime and Business;" "Ticonderoga;" "Burma."

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

The April issue contains: "The Prerogative of Dissolution," by L. G. Power; "How

Joseph Won Asenath," by S. R. Allen; "Kate Carnegie" (continued), by Ian Maclaren; "The Canadian Pacific Railway," by J. Macdonald Oxley; "A Canadian Bicycle in Europe," by Constance R. Boulton; "Lake Simcoe Lore," by Reverend H. Scadding; "The University of Toronto," by Professor W. H. Fraser; "Nurse Edith's Easter," by Ella S. Atkinson; "One Hair White or Black," by Edith S. Moodie; "Representative Government and Federalism," by Edward Meek; "Kirby's Canadian Idylls," by S. A. Curzon; "A Review of Ernest McGaffey's Poems," by Jean Blewett; and the usual departments.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

In the April issue Tudor Jenks tells all "About Flying Machines;" "Teddy and Carrots," by James Otis, is concluded; "Lieutenant Harry" is by Thomas E. Turner; "Mardie's Experience," by Kate D. Sweetser; "The Prize Cup" (XXIV-XXVIII), by J. T. Trowbridge; "Sinbad, Smith & Co." (VII-VIII), by Albert Stearns; "The April Fool," by Benjamin Webster; "How the Whale Looked Pleasant," by Charles F. Holder; "Stalled at Bear Run," by Thomas Holmes; "The Olympian Games," by G. T. Ferris; "The Swordmaker's Son" (XII-XIII), by W. O. Stoddard; "In Top Time," by Henry Reeves.

APPLETONS' POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 a year. D. Appleton & Co., New York.

The contents for April are: "Principles of Taxation," (part III), by D. A. Wells; "Practical Results of Bacteriological Researches," by George M. Sternberg; "Tropical Fruit Trees," by Bertha F. Herrick; "War and Civilization," by W. D. Le Sueur; "The Savage Origin of Tattooing," by Cesare Lombroso; "Hypnotic States, Trance, and Ecstasy," by W. R. Newbold; "Quacks and the Reason of Them," by Doctor A. Cartaz; "The Ways and Means of Ants," by Norman Robinson; "Evolution of the Professions" (XII), by Herbert Spencer; "Editor's Table," etc.

DONAHOE'S MAGAZINE. Price, 25 cents; \$3.00 per year. Donahoe's Magazine Co., Boston.

The April number contains: "Extension of our Foreign Commerce," by F. B. Thurber; "Permanency of Municipal Reform," by John W. Goff; "The Rebellion in Cuba," by Reverend C. W. Currier; "Abuses in the Steerage," by P. O'Neill Larkin; "St. Al-

phonsus as a Poet," by Fr. Magnier; "The French Constantine," by Bernard Morgan; "Brigadier-General Coppinger," by M. E. Hennessy; "The Development and Office of the Novel," by J. E. Miller; "Figures that Lie," by M. E. Twomey; "The Emperor's Capital," by M. W. Rodger; "The Twin Opals," by Margaret Halvey.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 a year. The Home Science Publishing Co., Boston.

The April number contains: "Home Life Portrayed in Art," by Estelle M. Hurl; "Food of the Japanese," by Mrs. M. H. Abel; "English Impressions—Domestic Service vs. Flunkiness," by Julia R. Tutwiler; "Springtime Luncheons," by Mary J. Lincoln; "Hospital Diet," by Ellen H. Richards; "A Woman's Strawberry Bed," by Olive E. Dana; "Abuse of Alcoholic Drinks from a Sanitary Standpoint;" "Healthful and Economical Food;" "Hot-Cross-Buns;" "Pass-over Bread;" and the usual departments.

THE UNITED SERVICE. Price, 25 cents; \$2.00 per year. L. R. Hammersly & Co., Philadelphia.

The *March* issue contains a discussion as to "Whether Grouchy by Disobedience of Orders Caused the Defeat of Napoleon at Waterloo," by Frederick L. Huydekoper; "His Own Brave Act," by Lieutenant L. S. Van Duzer, U. S. N.; "Art of Horsemanship."

That of *April*: "Some Needs of American Commerce," by William F. Prosser; "The Great Strike of 1894," by Captain J. J. O'Connell, U. S. A.; "The Old Soldier," by M. Carrie Heyde; "Protection of Our Commerce in War," by H. W. Wilson; "Naval and Military Notes," etc.

COSMOPOLITAN. Price, 10 cents; \$1.00 a year. Cosmopolitan Publishing Co., Irvington-on-the Hudson, N. Y.

Contents for April are: "A Word about Golf, Golfers, and Golf-Links in England and Scotland," by Price Collier; "Vicissitudes of the Dead," by Eleanor Lewis; "The Lyceum," by James B. Pond; "Development of the Overland Mail Service," by Thomas L. James; "Mrs. Cliff's Yacht," by Frank R. Stockton; "Hilda Strafford," by Beatrice Harraden; "Terra Incognita," by Agnes Repplier.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Company, New York.

The April issue contains: "Relations of Great Britain and the United States," by D.

A. Wells; "Possible Complications of the Cuban Question," by M. W. Hazeltine; "Pygmy Races of Men," by Frederick Starr; "Recollections of Lincoln's Assassination," by Seaton Munroe; "The Future Life and the Condition of Man Therein" (iv), by W. E. Gladstone; "Problems of the Transvaal," by Karl Blind; "The North Polar Problem," by A. H. Markham; "Governor Morton as a Presidential Candidate."

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 25 cents; \$2.00 per year. The Monthly Illustrator Publishing Co., New York.

The chief articles in the April number are: "Eminent Living Artists," "Sir John E. Millais," by R. R. Wilson; "Cuxhaven to Constantinople," by C. W. Allers; "Butterflies in Eden," by V. E. Mitchell; "Holy Week and Easter," by Reverend J. Pelham; "The Choquard Farm," by Cecile Bronn; "Modern Schools of Painting," by E. M. Ward; "Some Recent Dramatic Events," by Robert Stodart; "Uxmal," by William D. Foulke.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Co., New York.

The contents for April are: "The Correlation of Spiritual Forces," by Franz Hartmann; "The Philosophy of Psycho-therapeutics," by S. S. Mumaugh; "Involution as Correlated to Evolution," by S. B. Biggar; "The Martyrdom of Man and 'Being'" (xv), by C. H. A. Bjerregaard; "Mathematical Principle in Unity," by C. R. Darling; "Freedom and Destiny," by W. J. Colville; and the usual departments.

THE MONIST. Price, 50 cents; \$2.00 per year. The Open Court Publishing Co., Chicago.

In the April issue "The Roentgen Rays" are treated of by Professor Ernst Mach and Herman Schubert; Edward Atkinson writes of "The Philosophy of Money;" "In Search of True Beings" is by W. Lutoslawski; "From Animal to Man," by J. Clark Murray; "Nature and the Individual Mind," by Kurd Lasswitz. "The Nature of Pleasure and Pain" is an editorial commenting on Ribot's theory. There are the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

This magazine for April is a bicycle number, and opens with a paper by General Miles; F. A. Egan traces the development of the bicycle in "Evolution of a Sport;" Isaac B. Potter writes of "The Work of Wheelmen

for Better Roads." The short papers are: "A Persecuted Genius;" "Mrs. Huneke, Sculptress;" "Chimmie Fadden on the Stage;" "Aunt Dinah Xantippe's Dissertation;" "The Most Eccentric Man in the World," etc.

OUTING. Price, 25 cents; \$3.00 per year. Outing Co., New York.

The April issue contains two complete stories, "Glück Auf," by Jean Potter Rudd, and "From Out the Ruins," by Mary B. Goodwin. Other notable features are: "A Good Old Fox Hunt," by E. W. Sandys; "Cycling in England," by Ernest R. Holmes; "Hunting with Beagles," by Bradford S. Turpin; and "Model Yachts," by Franklyn Bassford. The editorial and record departments are very interesting.

AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. Geological Publishing Co., Minneapolis.

Current papers of the April issue are: "Apparent Anomalies of the Postville Well," by Samuel Calvin; "Englacial Drift," by M. C. Crosby; "Further Examination of the Fisher Meteorite," by N. H. Winchell. There are the usual Editorial Comments, Review of Recent Geological Literature and Recent Publications, Correspondence, Personals, and Scientific Notes.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. The Anthropological Society, Washington.

The leading paper of the April issue is "Indian Use of Wild Rice," by Gardner P. Stickney; then follows "Racial Anatomical Peculiarities," by D. K. Shute, M.D., and "Pueblo Snake Ceremonials," by F. W. Hodge. There are the usual Book Reviews, Notes and News, Bibliography of Anthropologic Literature, etc.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 a year. W. T. Comstock, New York.

The issue for March 28th contains: "The Site of the United Libraries;" "Editorial Notes and Comments;" "The Proper Arrangement of Water Closet and Bath Apartments," III; "In Streets and Papers;" "Legal Notes;" "Fever Hospitals," VIII; "Societies;" "Obituary;" "Personal."

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

Contents for April: "Amateur Home Decoration;" "Answers to Correspondents;" "Household Hints and Helps;" "Concern-

ing Clubs and Art Matters;" "Decorative Textile Fabrics;" "Furniture and Furnishings;" "Mural Decoration;" "Pottery, Porcelain, and Glass;" "The Library."

THE REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

In the April number there are discussions of "The African Situation;" "The Attitude of Russia toward European Powers;" "America's Relations with Spain;" "Present Status of the Venezuelan Boundary Dispute;" and "A Survey of the Cuban Situation."

WARNE'S LIBRARY OF NATURAL HISTORY. By Richard Lydekker, B.A., F.R.S., F.Z.S. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

The issue of January 1st, 1896, is No. 17 (Volume III, No. 5), and continues the history of the finch tribe of birds, along with sparrows, buntings, and canaries. Chapter IV commences the perching birds with the larks, pipits, honey-eaters, and tits; also the shrikes, thrushes, etc.

The issue of January 15th is No. 18 (Volume III, No. 6), and continues the perching birds, along with the chats, warblers, and dippers, fly-catchers, swallows, chatterers, broad-bills, and lyre birds, and is edited by H. A. Macpherson. Then follow the Picarians, commencing with the woodpeckers, honeyguides, and toucans; this is edited by R. Bowlder Sharpe.

The issue of February 1st (No. 19) continues the Picarians, along with the cuckoos, trogons, humming-birds, night-jars, hoopoes, kingfishers, etc., also the introductory portion of the chapter on Parrots, dealing with the Nestor Phillip Island parrots and the lorries; also title page, index, and table of contents of Volume III.

The colored plates of these three issues are true to life, and depict wheat-ears, stone-chats, whinchats, dipper, pied wag-tail, yellow wag-tail, desert finch, desert lark, reed, yellow, common, Lapland and snow buntings, Kaka parrots and hoopoes.

THE PRACTICE OF MEDICINE. By Marvin A. Custis, M.D. Flexible leather; 16mo; pp. 367. Price, \$2.00. Boericke & Tafel, Philadelphia.

This is a condensed manual for the busy practitioner, and appears to be of very practical character, inasmuch as in the description of diseases the latest definite views of etiology and pathology are given, and for treatment—the author claims—only those remedies are mentioned that have a definite relation to the disease treated of.

Of especial value to the homœopath is the fact that the symptoms for each remedy have been marked according to their estimated value. Those put in italics are distinct and positive; those marked by an asterisk are the recognized "characteristics or keynote;" and those left without a sign are the ordinary symptoms of the drug. The standard works of both schools have been consulted in the preparation of this manual.

THE NATIONAL DISPENSATORY. Fifth edition. By Alfred Stillé, M.D., LL.D., John M. Maisch, Phar. D., Charles Caspari, Jun., Ph.G., and Henry C. C. Maisch, Ph.G., Ph.D. Leather; pp. 2025. Price, \$3.00. Lea Brothers & Co., Philadelphia.

In its fifth edition the National Dispensatory upholds all that has been promised in previous issues. We also note as a supplement a revised edition of the National Formulary, which contains full working formulæ for all unofficial preparations of approved value. Thus the complete volume embraces the entire range of both official and unofficial pharmacy, materia medica, and therapeutics.

THE YEAR BOOK OF TREATMENT FOR 1896. Cloth; 12mo; pp. 484. Price, \$1.50. Lea Brothers & Co., Philadelphia.

This is a critical review of medicine and surgery for the past year, and every practitioner will readily appreciate the especial value of a work which summarizes a year's progress in all departments of medical science and at the same time presents the results in classified form for ready assimilation or quick reference. The fact that this is the twelfth annual issue of this volume attests both its usefulness and popularity.

THE PSYCHOLOGY OF ATTENTION. By Th. Ribot. Cloth; 12mo; pp. 328. Price, 25 cents. Open Court Publishing Co., Chicago.

Psychologists have given much study to the effects of attention, but very little to its mechanism, hence the latter is chiefly the *raison d'être* of this little volume. To criticize the work fairly it would be necessary to reproduce it in whole chapters; hence we can only say that it is worthy of careful perusal, and once read it will be re read with new interest and increased profit.

APPENDIX TO DUNGLISON'S MEDICAL DICTIONARY. Octavo; pp. 24. Lea Bros. & Co., Philadelphia.

This Appendix will be mailed free of charge to all who purchased the twenty-first edition of this well known lexicon. Future purchasers will secure the Appendix already bound in the work.

Therapeutic Brevities.

Fresh-plant Extracts.—A New England Eclectic practitioner, writing in the *Journal of Medicine and Science*, expresses the opinion that in a majority of cases our present manipulation of plants is erroneous and based upon cheapness and convenience rather than efficiency. Had we, for example, followed Dioscorides' simple directions for preparing extract of conium, a thousand years of failure with this preparation, perpetuated to this time even, would have been avoided, it having been but lately proven that the least amount of artificial heat will destroy the active principle thereof. The author believes that nearly all of our native plants should be prepared something like this: Take any convenient number of pounds of fresh plants (roots, stalks, and all) in their proper season; run them through heavy steel rollers, on the plan of a clothes' wringer, crushing them and forcing out the juices; save the juice; macerate the remaining pulp a reasonable time (alcohol being used most commonly as a menstruum), and express under heavy pressure; mix the reserved juice and expressed tincture, and set aside for several days; filter and reduce, *in vacuo*, to the number of pints of fluid extract corresponding to the pounds of fresh drug employed. In many cases it would be preferable to remove the alcohol entirely and replace the same by glycerin and water. —*Western Druggist*.

Witch Hazel.—Following the directions for the preparation of the aqua hamamelidis of the National Formulary, a product was obtained that contained fifteen per cent. of 94-per-cent. alcohol, together with such substances as are dissolved from the leaves, etc., during process of maceration and distillation. All investigations hitherto directed toward the discovery of any active principle possessing the wonderful healing properties ascribed to the extract of witch hazel have been barren of results, unless we except a small quantity of volatile oil, to which the peculiar odor is due, and the alcohol which has been added as a preservative. The conclusion is inevitable that the only active principle is the added alcohol. Of seventeen samples of various makes which were analyzed, the volume-percentage of alcohol varied from 8 to 12.79. In all cases the acid reaction was due to the presence of a small quantity of acetic acid. Distilled extract of witch hazel is nothing more or less than a highly diluted alcohol, containing traces of valueless extractive mat-

ter and a small quantity of volatile oil to which its peculiar and agreeable odor is due. —W. D. HOEFFKEN, in *Bulletin of Pharmacy*.

Strabotomy.—Landolt considers the advancement of the antagonistic muscle a much more valuable surgical procedure for the relief of squint than the tenotomy of the squinting muscle. Even of cases of simple insufficiency of convergence or divergence, where tenotomy is admissible, the results of the latter are often unsatisfactory, because a considerable portion of the adducting or abducting power is lost. When the squint is excessive, tenotomy is often inconvenient on other grounds. In the operation of advancement the excursions of the eye are always increased without any loss in the power of the antagonist. Moreover, both convergence and divergence gain more by this operation than by tenotomy. Finally, the operation of advancement never causes any disfigurement. Tenotomy may be considered in cases of motor insufficiency, latent squint, or squint of a low degree, according to most modern ophthalmologists; but Landolt believes that in all three classes of cases advancement offers greater advantages. It has never in his hands caused an over-correction of the defect. It must, however, be generally done on both eyes.—*New York Medical Journal*.

Treatment of Abortion.—In threatened abortion the right treatment is rest and opium, with extract of *Viburnum prunifolium*. If free flooding sets in, the os remaining closed, the vagina should be plugged with iodoform gauze or aseptic wool. When the os is dilated so as to allow of the passage of a finger, the ovum should be detached and extracted, and the uterus and vagina syringed out once and for good with any suitable disinfectant in solution. When the dilatation of the os is imperfect, so that the finger cannot be introduced without force, whilst flooding grows severe, it is right to press the finger forcibly through with great care till the cervix is dilated. Then extraction must be practiced. In many cases the expulsion of the ovum may be left to nature. Ergot should be given for a week after abortion, spontaneous or induced. I very much deprecate the routine employment of the curette and of vaginal irrigation.—JACUB, in the *British Medical Journal*.

Intra-uterine Injections of Glycerin.—This was proposed by Pelzer some three years ago for the induction of labor. Soon after-

ward Pfaunenstiel announced that in two instances he had observed the most positive signs of poisonous effects upon the kidneys and the circulation. Since then similar effects have been reported, until now Doctor Hypes declares the measure should be abandoned. The glycerin is absorbed from the uterus, and getting into the blood causes decomposition of the red corpuscles; and the hemoglobinuria thus set up brings on a glomerulo-nephritis, with bloody urine. Doctor Hypes concludes that intra-uterine injections of glycerin are often inefficient anyway; that they are apt to be followed by all the ill-effects—shock, air embolism, thrombosis, metritis, and sepsis—of other intra-uterine douches which have been used and abandoned during the present century; and that they may, and sometimes do, produce poisonous effects on blood and kidneys.—*American Journal of Obstetrics*.

Albuminuria and Chloroform-Anæsthesia.—Patein has made seventy-six observations, each one comprising specimens taken before anæsthesia, during anæsthesia but before the operation, and after recovery from the anæsthetic. Albuminuria was found before anæsthesia in twelve per cent., during anæsthesia but before the operation in thirty-five per cent., and after the operation in seventy-three per cent., of these cases. This albuminuria disappears generally by the end of two or three days, is not proportional to the duration of the anæsthesia, and appears to depend solely on the chloroform. With patients who are already albuminuric the quantity of albumen may be increased, but this is not generally true, nor is there any fixed rule. The kidneys do not undergo any serious alteration; the uric acid and chlorides are generally more abundant, but there appears to be nothing more than a passage of serum-albumen at the glomerulus.—*Journal des Praticiens*.

Lactophenin.—Herman Strauss reports three instances of catarrhal icterus, accompanied with stools which were free from bile, during the administration of this drug. Hitherto few unpleasant symptoms have been recorded. Naturally perspiration has been noticed, but severe disturbances on the part of the heart have not been reported. Two cases of exanthemata were also observed. The dose employed was fifteen grains four times daily. The colorless stools persisted several days in two cases, and in the third for seven weeks. In every case the commencement of the jaundice was accompanied by characteristic

dyspeptic symptoms. Taking these instances in connection with experiments on animals, where gastric congestion and marked duodenal injection were noted, it is quite likely that the administration of the drug is related to the appearance of the icterus. How the drug brings about these conditions is not easy to say.—*Therapeutische Monatshefte*.

Chlorosis and Iron.—Not all cases of chlorosis will yield to iron, and the menorrhagic variety will be actually aggravated. The characteristic symptoms are: Face of an earthy color, with bluish spots, or merely very pale—at the least effort or emotion the cheeks flush up suddenly, and immediately become pale again; a bitterish, bitter, or earthy taste in the mouth; emaciation, accompanied by swelling of the face and œdema of the extremities, with a dull pallidity of the tissues; menses intermittent; amenorrhœa; palpitation, anxiety, and dyspnœa. The principal symptom is diminution or disappearance of the menses.

What is the proper preparation and dose? While the German physicians speak highly of the carbonate, and Hayem prefers the protosalate, I prefer the insoluble preparations and usually administer Quevenne's salt—iron by hydrogen.—JOUSSET, in *L'Art Médical*, No. 6, 1895.

A New Iritomy.—I have devised a new method of forming artificial pupil in cases of central opacity of the cornea or lens, which has the advantage over iridectomy in that the periphery of the refractive media, which is of irregular refraction, is not exposed to the entering light rays. This I term *externa iritomy*.

An incision is made through the cornea a little in front of the limbus, large enough to permit of easy passage of a small portion of the iris:

By means of iridectomy forceps the iris is gently drawn out through the wound:

The sphincter is incised to a variable extent with the scissors:

The iris is returned to its place, and the eye bandaged.

The operation is expedited and the danger of prolapse of the iris lessened if eserine has been instilled before operation.—LAGRANGE in *Annales d'Oculistique*.

Tartar Emetic and Variola.—Lichtenstein of Brunswick, many years ago was so impressed with the resemblance of the tartar emetic eruption and other symptoms to those

of variola and vaccine that he abstracted the lymph from the pock of the drug eruption when in the vesicular stage, and transferred it from arm to arm in the same manner as practiced in vaccination. An experience extending over a period of ten years was such as to lead him to recommend the lymph thus obtained instead of cowpox virus. His views, however, have not been adopted by the general profession, and this indirect method of "vaccination" has never been adopted.

In point of comparison tartar emetic has many similarities with arsenic, ipecac, tabacum, lobelia, and veratrum viride, especially the latter.—DOCTOR EVANS, in *Clinique*.

Cirrhosis of the Liver.—I have had best success with calomel and corrosive sublimate in the treatment of this malady. To patients seen early in the disease I give every twelve hours for seven days a powder containing one and one-half to three grains of calomel, one sixty-fourth grain of corrosive sublimate, and three grains of sugar of milk.

The diet should consist chiefly of soups, milk, and lemonade; meats, leguminous food, etc., should be forbidden. A purgative may be given if constipation is present.

If the disease is so far advanced that the sufferer is no longer able to be up, and ascites is present, this treatment should at first be continued no longer than three days; then but one powder daily.—EDELBEIT, in *Münchener Medicinische Wochenschrift*.

Unjustifiable Operation.—Oöphorectomy is certainly unjustifiable in hysteria, which I deny to be of genital origin; and I consider all women martyrs who have been castrated for this malady. Catamenial irregularities and peculiarities associated with hysteria are due to the same cause as the nervous symptoms, and are not themselves factors *per se*. Oöphorectomy becomes as reprehensible as castration for allied states in the male. I have positively never known the operation to be justified by the results. Many women, however, become morbid or otherwise mentally affected as the result of the loss of the ovaries, and as a whole I unqualifiedly condemn the operation for nervous symptoms.—DE LA TOURETTE, in *Archives de Gynécologie*.

Cantharides in Albuminuria.—M. du Cazel calls attention to the observation of Lancereaux, made in 1892, concerning the benefit to be derived from the use of cantharides in albuminuria. Five cases are reported,

four of which were completely cured by use of four to twenty drops of the tincture, while the fifth was considerably relieved. Of these cases, three were suffering from acute nephritis resulting from some ill-defined cause, perhaps a *frigore*; the fourth was consecutive to a pneumonia treated by cold water. The cases, reported in detail, seem to warrant the conclusions of the author.—*Gazette Hebdomadaire de Médecine et de Chirurgie*.

A New Anæsthetic.—Oil of guaiac is an efficient anæsthetic in all operations on the eye and its appendages excepting those on the cornea and anterior chamber. I employ fifteen grains of crystallized guaiac to 150 grains of sterilized olive oil. The needle of a hypodermatic syringe is introduced into the part to be operated on, and while being slowly withdrawn is caused to deposit two or three drops of the solution. Anæsthesia is produced in eight or ten minutes, and is continued twenty-five minutes.—BELLENCOURT, in *Journal de Médecine de Paris*.

Soluble Bismuth Phosphate.—This is prepared by fusing together bismuth oxide, sodium hydrate, and phosphoric acid. The compound contains twenty per cent. of bismuth oxide, and is soluble in two parts of water, although concentrated solutions are not permanent. The solution is slightly bitter and salty. This new compound has been given in doses of from three to five grains as an intestinal antiseptic, and in acute gastric and intestinal catarrh.—*Pharmaceutische Zeitung*.

Cyclamen and Pulsatilla.—There is a striking resemblance between the two remedies. Cyclamen is adapted to blondes and leucophlegmatic subjects, as pulsatilla also is, and for which it is regarded as the classic remedy. Both are excellent remedies where there is decreased or suppressed menstruation, numerous gastric symptoms, indigestion from greasy or fatty foods, anæmia, coldness and chilliness, as well as absence of thirst.—*Rivista Omiopatica*.

Snake-bites.—I have had more than one hundred cases of bites by poisonous reptiles, and never saw a case result fatally that was treated by hypodermatic injection of potassium permanganate and administration of chloroform locally and by inhalation. I give permanganate in one- and two-grain doses.—DOCTOR LINCUM, in *Southern Practitioner*.

Camphor for Ether Collapse.—Hypodermatic injections of camphor in larger doses than are generally advised are beneficial in ether collapse. Half-grain doses are very effective, but the results obtained from one-grain doses are extremely gratifying. The solution should be one part camphor to ten parts oil. As the camphor is eliminated within two hours, it has no cumulative effect.—SCHILLING, in *Munchener Medicinische Wochenschrift*.

Yeast Nuclein in Tuberculosis.—In cases of pulmonary tuberculosis with cavities it does no good:

It may retard the progress of long-standing cases, so long as secondary infection with pyogenic germs does not occur:

Temporary relief may be obtained in early cases of small area:

It has proved satisfactory in urinary tuberculosis.—*Indian Lancet*.

Ergot for Periodic Headache.—Cappellari reports three chronic cases which had proved rebellious to ordinary remedies, treated with large doses of the fluid extract of this drug; elixir of quinine was added to overcome the nauseous taste.

Nausea and vomiting is apt to occur if equal parts of each drug are given, in which case they may be given by enema.—*La Riforma Medica*.

Creosote Enema.—Annequin adds creosote to milk in the proportion of one part to twenty, then adding 250 parts of boiling water. When shaken together, these constituents form a perfectly milk-white emulsion. Employed as an enema in this way, creosote is the best of all medicinal agents that can be employed in the treatment of consumption.—*Lyon Médical*.

Chlorosis in Strumous Habits.—

- B Syrup iodide of iron, 12 grains.
Tincture calumbo, 31 grains.
Distilled water, to make 217 grains.

Two teaspoonfuls twice or thrice daily.

—ASHWELL.

Chronic Diarrhœa and Dysentery.—

- B Sulphate of copper, 1 grain.
Sulphate of morphine, 1 grain.
Sulphate of quinine, 24 grains.

Make twelve pills. One three times a day.

—*Medical Record*.

Serum Therapy per Rectum.—M. Chante-messe states that the immunizing serums can be employed in the form of enemata with the same result as when given subcutaneously.

[We do not doubt it.—ED.]

Test for Sparteine Sulphate.—Mix in a porcelain capsule with about one-third its weight of chromic acid, and gently warm; the mass at once turns green from the reduction of the acid, and gives off a distinct odor of coniine.—*Journal de Pharmacie d'Anvers*.

Electricity for Hæmorrhage.—Doctor M. G. Jenison, of Minneapolis, reports he has repeatedly and successfully employed this agent to check hæmorrhage following extraction of teeth. He says it causes instant coagulation of the blood.—*Electricity*.

New Application of Tendon-grafting.—Miliken has found a method of relieving the deformity resulting from infantile paralysis, by suturing the tendon of a paralyzed muscle to the tendon of a non-affected one.—*Exchange*.

Devil's Snuff in Epistaxis.—Doctor Hall states that the powder of *Fungus myces*, commonly known as "devil's snuff," invariably stops epistaxis when snuffed up the nostrils.—*Virginia Medical Monthly*.

Ruta Graveolens in Eye-strain.—In this condition, especially observed in seamstresses, this remedy is most serviceable. Apply an infusion of the leaves externally.—*Monatsblätter*.

Gonorrhœa of Kidney.—Howard A. Kelley reports a most interesting case of gonorrhœal infection of pelvis of the kidney and ureter. It was relieved by catheterization and irrigation.

Agaricus in Chorea.—Doctor Henry Chand-lee reports a series of eight cases of chorea, all of which were much improved by this remedy.—*Exchange*.

Uterine Fibroids.—Fifteen minims of syrup bromide of iron in half a wineglass of water three times a day, after food.—DOCTOR ALBERT VENN.

Medical Progress.

ANTITOXIN AND ITS THERAPEUTICS.—While using the serum treatment during the past year, both as a curative and as a preventive agent in a series of nearly three hundred cases, some very startling results, not so far referred to by any of the writers upon the subject of antitoxin—or at least if described by any other observer such description has not come to my notice—have accrued.

In October, 1886, diphtheria appeared in a mild form in Vevay, and from that date to the present time there has never been six consecutive months within which I have not treated cases of the disease; the months of September, October and November have in every year produced the largest number of cases, except the past year. In December, 1894, it appeared in its most malignant form, and has continued ever since. The disease has varied in virulence very greatly in different years; during September and October of one year I treated 123 cases without a death, all being of a mild form with no tendency to invade the larynx; on the other hand, during November and December of 1892, of five cases treated, all proved fatal, the larynx being invaded in each case by so-called membranous croup—a term, by the way, which is rapidly disappearing, the more sensible *laryngeal diphtheria* being used in its stead, the location of the deposit being the only distinction.

When I first began practice, the very general treatment of diphtheria was whiskey administered in very large doses internally, and a mixture of Monsel's solution and glycerin applied locally; some advocated also the administration internally of very large doses of tincture ferric chloride, the very general belief being that the disease was at first local, and if the deposit was removed early the system would remain unaffected—a reverse of what is now known to be the fact; the deposit is the local manifestation of general toxæmia, as a chancre is a local manifestation of a poisoned system.

Before treating a dozen cases I noted that, however often the deposit was removed, so long as fever and other systemic symptoms were present it rapidly returned, but upon the subsidence of the fever and disappearance of other symptoms of infection the false membrane exfoliated without any local treatment; and from that time to the present I have never used any local treatment whatever with the object of removing the false membrane, but solely with the view of ren-

dering or keeping the deposit aseptic. My treatment until the discovery of antitoxin has been tincture of iodine in dilute alcohol—for an adult one drop of iodine tincture to thirty drops of alcohol, with enough water added to make a tablespoonful, to be swallowed slowly every hour; smaller doses in proportion to the age of the patient. In all but the malignant type of the disease this acted like magic, its great advantage being that it would be retained when all other remedies as well as food were rejected by the stomach.

Since January 1st, 1895, I have treated fifty-seven cases of diphtheria, varying from the most malignant to moderately severe cases, none having been mild. Antitoxin* was used in all cases; there were two deaths, with fifty-five recoveries, a mortality of less than four per cent. During the same time I have made over two hundred inoculations as a preventive measure, and not one thus inoculated has taken the disease, though quite a large number of them were exposed to malignant cases. Nine persons were inoculated after prodromal symptoms had become well marked, and in every case the symptoms entirely disappeared within thirty-six hours. When inoculating as a preventive measure I have uniformly given 200 antitoxin units (Behring), and repeated the same at the end of three months. As a curative measure, when the disease was well established, the dose has varied greatly, being governed by the duration, age of the patient, and severity of case as indicated by the symptoms, as follows: Where the membrane was still confined to the tonsils, the temperature not exceeding 102°, I have uniformly given 400 units, watched results, and if at the end of twenty-four hours there was an improvement as indicated by subsidence of fever and no extension of membrane, I gave 200 additional units, and nothing more was required. But if at the end of twenty-four hours there was no improvement, the case remaining unchanged, 400 additional units were given, and repeated each twenty-four hours until convalescence. After first giving the 400 in such cases, at the end of twelve hours, when I always made a second visit, if I found the symptoms worse, from 600 to 1500 units additional were given, according to apparent severity; I then visited my patient every six hours, administering 200 units at each visit until improvement was manifest.

If on first seeing my patient the false membrane has invaded either the larynx or posterior nares, or the terrible stench indicates I have a case of septicæmia to fight, I ad-

* Parke, Davis & Co.'s product.

minister from 1500 to 4000 units at once, and then give from 200 to 1000 additional every six hours until improvement; and I have never yet treated a single case that there was not improvement. In the two cases in which there was a fatal result, both died after my visits had ceased and they were apparently safely convalescent,—one, contrary to my instructions, had been allowed to go out in the yard and spend the afternoon reviewing a circus parade, and died that night from heart-failure, not paralysis; the other died from heart-clot. Both cases had been of the most malignant type, having besides involvement of both nares and larynx the additional feature of septicæmia; in both the false membrane readily disappeared from all points, after which I had a long, stubborn battle with the septicæmia, which left them extremely anæmic; both also were far advanced before treatment was begun, the cervical lymphatics being greatly swollen. One recovery was a case primarily of laryngeal diphtheria, the membrane extending on the third day to the tonsils.

Summing up, my conclusions are as follows: In average cases when seen early, give from 400 to 600 units, and repeat at intervals of from six to twenty-four hours: In malignant septic cases or where the larynx is involved, give from 1500 to 4500 at the initial dose, and repeat with from 200 to 600 every six hours, and give stimulants: When the nares are involved, use an antiseptic wash every two to four hours. The exhaustion following even mild cases of diphtheria not treated with serum is entirely wanting after the serum treatment, most patients expressing themselves as being *stronger and more vigorous after recovery than before contracting the disease*.

In addition to the preceding remarkable fact, the following surprising results were noted as a consequence of serum inoculations—some were made as a preventive measure and part were purely experimental, with the consent of parents: A child thirteen months old was weak and undeveloped, having been bottle-fed and never having taken any form of nourishment without also taking a digestive ferment with the food or after; it also had suffered from birth almost constantly with diarrhœa and vomiting. This child, along with the other members of the family, was inoculated with serum as a preventive, and since twenty-four hours after the inoculation it has never taken a dose of medicine, has had no diarrhœa, and has rapidly gained in weight. The father called my attention to the fact about a month after the administration of the serum, and while

on my way home from his house I met the mother of another child with the same history, which had been inoculated a few days before the first case. Since then I have inoculated a considerable number of children with the object of improving their nutrition and digestion, and the results have been magical in every instance. A tuberculous patient has been greatly benefited since being inoculated for the prevention of diphtheria. Two paralytics treated at their own request by serum injections have improved in weight and in strength of paralyzed muscles. Two cases of melancholia treated by me for want of some better thing to do in their cases, have shown improvement; but these as well as the former two are not trustworthy, as the results may be from a purely psychic cause.

The most satisfactory results of all in this class have been in two little boys born of tuberculous parents, and who since birth have been subject to ulceration and pus-formation in various portions of their bodies,—so-called scrofulous children. One is six, the other is eleven years of age; both were thin, pale, and anæmic; both have grown fleshy and much stronger, the color of the skin entirely different; in short, there is an entire change in their nutrition.—Abstract of paper by DOCTOR H. T. DALGLEISH in *Journal of the American Medical Association*.

FOOD AND INDIGESTION.—We have as many kinds of dyspepsia as there are kinds of food to be digested. Thus a person may have starchy or salivary indigestion, proteid or peptic, fatty or intestinal; but rarely, if ever, are all these forms found to begin in the same individual at the same time. A person can usually tell which of the forms mentioned he suffers from. Let him eat only one kind of food at a time until he has ascertained which it is that disagrees with him; then by avoiding that food, whether it be starches, meats, or fats, he can give that part of the digestive apparatus concerned in its digestion the needful rest. Under this favorable condition the digestive function soon resumes its normal activity. But prevention is better than cure, and I venture to offer some practical suggestions:

One of the most fruitful causes of starch-indigestion is insufficient mastication and insalivation; the efficiency of after-digestion depends largely upon the thoroughness with which the food is chewed and mixed with saliva,—no amount of pepsin taken as a medicine will compensate for the lack of this:

Fresh bread or any food which is apt to

form into a doughy or gluey mass is imperious to the digestive juices and should be avoided:

The diastase of the saliva is incapable of changing starch to sugar if either the starch is uncooked or the saliva not alkaline,—breakfast foods and other starchy cereals, therefore, should be well cooked, and vinegar pickles should be sparingly used or salivary digestion will be impaired:

The thinner the gastric juice, the more rapid and efficient will be the digestion of meats and other proteins. The presence of digested food in the stomach hinders the action of the gastric juice on the undigested portion; digested food should therefore be removed as quickly as possible, and nothing accomplishes this so well as water. Hence it is good to drink plenty of water with each meal,—don't wash down the food with it, but swallow the food and then drink as much water as you like.

As to which foods are wholesome and which are not, no hard and fast lines can be drawn. Healthy individuals differ widely in their ability to digest what are in general wholesome foods. Thus, milk is very readily and completely digested by some, while serious disturbance of the digestive system follows its use by others. Avoid, then, food which common experience teaches is unwholesome, and of the wholesome foods eat only those that agree with you. Foods which have a savory odor and pleasant flavor make our mouths water, *i. e.* excite the flow of the digestive juices, and on that account are believed to be more easily digested. As to the quantity of food taken, we should expect that the stomach, being a muscular organ, would need moderate exercise, and the findings are in accordance with our expectations, for experiments have shown that a moderately full stomach digests its contents more completely than either a distended stomach or one in which there is little food. A varied diet is digested better than a monotonous one. Where there is no variety the food is apt to become repugnant, and the digestive functions, as a result, are disturbed. A great variety at any one time, however, is more difficult of digestion than a simpler meal.

Very moderate exercise just after eating is probably not prejudicial to digestion. Violent exercise or fatigue certainly is. In violent exercise the blood is drawn away from the stomach, and as a result too little gastric juice is secreted, the gastric glands secreting actively only when well supplied with blood. Similarly, and for the same reason, active mental effort is not conducive to

good digestion. During sleep, digestion is not very active. The older physiologies used to tell us to avoid eating anything within at least three hours of bedtime. Experience teaches, I think, that a person going to bed with a moderately full stomach will sleep better than if the stomach be empty. If you need the food, take it. Cheerfulness has long been considered a very efficient aid to digestion. "Cheerfulness and health react on each other" and "Food well chatted is half digested" are sayings which contain more than a little truth.—THOMAS GRANT ALLEN, in *The Chautauquan*.

MENTAL DISEASES OF OLD AGE.—At the recent meeting of French alienists and neurologists the discussion turned upon senile affections of the mind. Mania was held to show a greater inclination to raving and an irresistible impulse for movement; to sexual excitement, even to satyriasis or nymphomania; and quite frequent megalomaniac ideas as of being rich, etc. It most frequently ends in dementia, but recovery has been observed.

Melancholia is the typical mental disease of old age. In the simple form the depression is less pronounced and shows a great inclination to remit. Hypochondriac ideas, complete absence of energy, and weakening of volition, characterize the clinical picture; sometimes this is interrupted by an act of violence to which the patient is driven by the sudden cropping out of ideas. Attempts at suicide are not infrequent, but are rarely successful. Recovery is frequent. Melancholia with agitation is not always curable. Stuporous melancholia is very rare.

Hallucinatory confusion of mind is quite frequent in old subjects, and probably is connected with atheromatosis of the arteries. It begins with symptoms from the circulatory and digestive apparatuses, and mental irritability, inclination to tearfulness, and poor memory. The acute stage exhibits complete mental confusion, unconscious and violent movements; the patient jumps out of bed, tries to escape through the window or door, rolls upon the floor, runs with his head against the wall or strikes the door with it; the facial expression is dull and anxious; feeding is difficult; the pulse is accelerated, small, and irregular; the extremities and face are slightly cyanotic, and sometimes there is fever; the pupils are unequal; there is hemiparesis and aphasia; syncope may set in. The prognosis is less favorable than in melancholia.

Senile paranoia is characterized by a rapid

development of the disease and hallucinations of vision. In nearly all cases arteriosclerosis is noticed. The frequency of erotic excitement is remarkable, and the subject either feels youthful and is looking for a wife or he suffers from the meaningless jealousy of an old man with regard to his wife, who like him is old, impotent, and weak.

Moral insanity also has been observed; hence the many cases of kleptomania, murder, and moral offenses.

Senile psychoses are of great importance in medical jurisprudence, not only with regard to the offenses mentioned, but also in reference to the question of mental responsibility in making wills, in marrying, or in regard to deprivation of rights. Even after his death, possibly in the will there are paragraphs which will decide as to the testator's mental health.—*Norsk Magazin for Lægevidenskaben*.

PULSATORY TINNITUS.—At the last meeting of the British Medical Association, Sir William Dalby exhibited a girl aged fifteen, always in excellent health, from whose left tympanic cavity a loud grating sound could be heard by the bystanders; it was something like the loud tick of a watch, synchronous with the pulse for several beats, then a brief interval, and again the tick. This remarkable symptom came on suddenly in February, 1894, and had remained ever since. The beats vary in number: e.g., seven beats, interval, two beats, interval, four beats, interval, thirteen beats. Hearing is not affected. No position or movement of the body, or indeed any condition that has up to now been noticed, appears to modify it. Both tympanic membranes are normal.

Sir William Dalby has met with only two other cases of a similar nature. Doctor Baker reported a similar case in the *Archives of Otolaryngology* about ten years ago.—*Cleveland Medical Gazette*.

OPHTHALMIA NODOSA.—At the June meeting of the Ophthalmological Society of the United Kingdom, Mr. Lawford reported an interesting case due to penetration of the tissues of the eye by the hairs of the foxmoth caterpillar (*Bombyx rubri*). The symptoms were severe, but the inflammation, which lasted with remissions and intermissions for six months, left the eye little, if any, the worse. The inflammation started with severe conjunctivitis, then infiltration of the cornea, iridocyclitis, and opacities of vitreous. Small, firm, gray nodules developed in the conjunctiva, sclera, or iris, and on examination were

found to contain a piece of the hair in the centre. Only nine or ten cases have so far been reported, and these mainly in Germany. The disease is probably toxic in origin, the poison being contained in the hairs, which in some caterpillars have glands at their bases.—*Canada Medical Record*.

HIGH TEMPERATURE.—Doctor Stanley communicates the case of a woman of thirty years who entered the hospital with a pneumonia, and in whom the temperature one day rose from 102° to 113.9° in the course of three and a half hours. Under an antipyretic the temperature fell to 104°. Then there was neither restlessness nor delirium, but she had lost all sense of feeling in her hands and feet, and declared that very warm applications were cold. The two days following the temperature remained in the neighborhood of 101.5°, but the third day the fever again rapidly rose to 113.9°. She was so weak that the antipyretic was not again given, but she received instead a solution of the acetate of ammonia. Next day the temperature was normal, and she went on to recovery.—*Norsk Magazin for Lægevidenskaben*.

PHIMOSIS.—This is a frequent agent in causing or aggravating diseases in children. The indirect disturbances from it by reflex action are often extremely puzzling and by no means infrequent; it affects digestion very seriously at times. Prolapsus ani accompanies preputial inflammation, which will also give rise to symptoms resembling those of stone in the bladder. Phimosis will aggravate the symptoms of any coexisting disease and be responsible for slow recovery in many cases, and reflex disturbances from it are of sufficiently frequent occurrence to justify a physician in making an examination of every male child for this condition.—MARTIN, in *Medical News*.

ENDOMETRITIS.—In endometritis exfoliativa there is never any infiltration, as has been asserted. Between the shedding of one membrane and the development of the next there may not be the slightest trace of a discharge. Tuberculosis of the endometrium is rare, the tube being the seat of tuberculosis of the female genitalia; gonorrhœal endometritis is very frequent, and may extend not only to the tubes, but also by the lymphatics to the peritoneum. Recent literature records no instance of the true diphtheritic endometritis.—WINCKEL, in *Wiener Medizinische Wochenschrift*.

The Medical Age.

VOL. XIV.

DETROIT, MAY 11th, 1896.

No. 9.

Original Articles.

A CONSIDERATION OF PUERPERAL CONVULSIONS.

BY W. P. MANTON, M.D.

In the consideration of the convulsions occurring during the terminal phase of the child-bearing act, one is confronted at the outset by the fact that the condition with which we have to deal is hydra-headed—a symptom-complex which neither runs a typical course nor presents any uniformity of pathologico-anatomical changes in the tissues or organs which may happen to be affected.

Modern methods of investigation have thrown great light on the majority of obstetrical subjects, and in many instances have furnished satisfactory explanations regarding hitherto obscure processes, but the utmost efforts of science have as yet failed to discover the essential ætiological factor in the production of the convulsions of pregnancy, parturition, and the lying-in state.

Literature teems with the reports of cases of this disorder, theories are rife as to its various causes, and competent observers are at work all over the world endeavoring to find a solution to the mooted question—but still, *ignis fatuus* like, it eludes the grasp, and remains unknown.

The term “puerperal eclampsia”—like that of “puerperal fever”—is itself unfortunate, since it conveys to the mind only a symptom or set of symptoms, the result of a variety of antecedent causes, which may be either simple or complex in nature, benign in results or terribly fatal. Tonic and clonic muscular spasms, associated with loss of consciousness, occur so frequently in a number of somatic diseases, and result from such a diversity of conditions, that to designate those especially affecting pregnant women by the adjective “puerperal” means nothing if not an ac-

knowledge of ignorance as to the real nature of the morbid processes underlying the condition.

The work done, however, has been far from unfruitful in its results, for from the chaos of data furnished by clinical experience, pathological examination, bacteriological investigation, and chemical analysis, we are now in a position to deduce certain facts, and, grouping these, to lay out a kind of provisional scheme of classification for the disease. Working along these lines, it is to be hoped that the day is not far distant when so-called “puerperal eclampsia,” as in the case of “puerperal fever,” will be resolved into its component parts, and we shall be enabled to deal with the disorder intelligently, according to its symptomalogical manifestations, and not, as to-day, in a manner wholly empirical.

Without entering into a detailed discussion at this point, and leaving out of consideration the essential initial ætiological factor, the probable causes of the eclamptic seizures *in gravida*, etc., may be briefly stated as:

Nervous, reflex, hereditary, or acquired:

Toxic or septic:

Other somatic morbid conditions.

Following this classification, it is possible, from the prevalence and frequency of the disease among certain classes and under certain conditions, from its symptomatology and sequelæ, and from the morbid changes which have been found in various visceral and other organs, to demonstrate the reasonableness of the causes just enumerated.

Whatever ideas may be entertained regarding the immediate exciting cause or causes of the eclamptic attack, it is beyond dispute that the initiatory trouble lies in the uterus, and is developed by the growth of the fertilized ovum. That the fœtus itself may contain some unknown morbid agent which is capable of producing irritative or destruc-

tive changes in remote organs of the body, is too improbable to demand consideration; but that the pressure in the uterus of the growing products of conception, under certain conditions, may set up an irritation of the terminal nerve filaments of that organ, with resulting convulsive explosions on the part of the higher nerve centres, seems at least a reasonable assumption. This appears all the more probable in the light of the recent investigations of Von Gawronsky* relative to the distribution and termination of the nerves in the female genitals.

This observer finds that the nerves in the uterine muscularis appear as compact, yet distinctly separate, fibres, which run tuft-like to the mucous membrane. Before they reach this, some of those in the submucosa contain intercalated cells which resemble in form multipolar ganglion cells. From these cell-bodies, processes arise which branch in all directions, and also extend to the mucosa, where they end freely in the epithelium, usually by a terminal disc.

A second variety of nerve fibres, from which the intercalated cells are absent, run from the muscular stratum to the superficial epithelium and the epithelium of the glands.

Now it is quite easy to conceive that irritation, the result of pressure exerted by the child *in utero*, or by overdistention of that organ, as in twin pregnancy or hydramnios, or by pressure plus the uterine contractions of labor, or the *withdrawal* of pressure by the evacuation of the uterine contents, may produce so great an impression on the terminal nerve filaments of the mucosa (decidua) as to start an impulse or series of impulses which, extending to the hypogastric or the solar plexus, is reflected upward to the convulsive centres of the medulla. That there is good foundation for this belief, is borne out by the statement of Carl Braun,† which will be verified by the experience of every observer, that while eclampsia occurs in Iparæ in cephalic presentations, it is rarely met with in breech cases,—a proof of the observation by Kundrat, that where the pressure is not speedily removed, as in the instance of un-

yielding cervix, contracted pelvis, etc., the course of the condition becomes more unfavorable. In accepting this explanation in answer to the query why all gravid or parturient women do not suffer from eclampsia, we must further assume that in those cases falling under this first division of our classification, as probably in the other two also, the affected patients are the subjects of a neurotic instability which renders them peculiarly susceptible to the influence of the agencies concerned in the production of the convulsive seizures.

An analogous condition is found in the functional eclamptic paroxysms of children. In this instance any slight eccentric irritation, as from scybalous masses in the intestines, gastric disorders, tooth-cutting, and the like, acting upon a highly excitable nervous organization, precipitates general convulsions. Here, although no organic lesion is present to account for the phenomena exhibited, "the same mechanism in the establishment of the paroxysms," says Nothnagel,* "comes into play as in an epileptic seizure itself"—where a distinct organic basis is responsible for the attack.

The appearance of albumen in the urine of a pregnant woman has always been looked upon as a serious complication, for the reason that the excretion of this substance by the kidneys is indicative of renal disturbance, often of an inflammatory character. As the result of such a nephritis a restriction or suppression of the elimination of the waste products of the body by the urine takes place, and the accumulation of this material in the blood gives rise to uræmic (?) poisoning and convulsions. The diagnostic value of albuminuria in the absence of other symptoms has been perhaps overestimated, as it accompanies or results from so great a variety of conditions; and while it is quite probable that a congestion or even a mild inflammatory state of the kidney may exist in those cases in which albumen is found in the urine, still it must not be forgotten that nephritis may be present without albuminuria, and post-mortem examination very frequently fails to discover any pathologica

* *Archiv für Gynäkologie*, bd. xlvii, p. 275.

† Transactions of the Obstetrical and Gynæcological Society of Vienna, February 17th, 1891.

* Ziemssen's Cyclopædia, volume xiv, pp. 301-302.

changes in the renal structure in the class of cases under consideration.

With the view of determining the frequency of albuminuria in non-eclamptics, Lantos examined the urine of a number of pregnant and lying-in women: In seventy grávida the urine contained albumen in 18.57 per cent.; in 600 newly delivered women it was found in 356, or 59.33 per cent.; in 268 Iparæ it occurred in 189, or 70.52 per cent.; and in 332 multiparæ in 169, or 50.3 per cent. Post-mortem examination of thirty-nine eclamptic women who had succumbed to conditions other than eclampsia or nephritis, showed the kidneys *anæmic* in fifteen, *pale* in twenty-one, and *congested* in three. The following pathological changes were also observed: Acute parenchymatous degeneration, nine times: albuminous degeneration, four times.

From examination of twenty-two cases post-mortem, Prutz concludes that in only a small proportion of cases can eclampsia be traced to renal changes.

From these observations, which are substantiated by many others, it appears that uræmic poisoning is not as frequent a source of the convulsions as has heretofore been supposed, if indeed it is at all directly responsible. Frerichs long ago pointed out that urea itself is innocuous, but that the transformation of this product in the blood into carbonate of ammonia and the excitant effect of the latter on the nervous system is responsible for the convulsive seizures. Oppler and others showed, however, that the uræmic symptoms were not dependent on urea, but upon the presence of those products of tissue metamorphosis which later are converted into urea and uric acid (creatin, creatinin, etc.).

It is clearly evident that, whatever the morbid agent may be, the kidneys play an important rôle, probably through the action of the nervous system, in retarding the escape of deleterious substances, and thus throwing into the blood a toxic principle which acts as an irritant on the convulsive centres.

It is unnecessary to consider here those other bodily states or diseases, such as epilepsy, which may give rise to convulsive seizures during the reproductive process. The point which I desire to make, and to emphasize, is that in all convulsions occurring during

these periods the nervous system is *primarily* at fault, and efforts toward the relief of the condition should first of all be directed to the removal or allaying of the nervous irritation—and then to the removal or allaying of the results which that irritation has brought about.

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SUGGESTIONS REGARDING THE MANAGEMENT OF TYPHOID FEVER.

BY LOUIS HENRY, M.D., L.R.C.P.

The tendency of the present day in the treatment of typhoid fever is to achieve what is colloquially termed intestinal antiseptics—a measure which must necessarily be largely indirect as contrasted with surgical antiseptics. In typhoid the micro-organisms are so situated that they are not easy to reach, for they do not restrict themselves to the open intestine, but permeate as well the intestinal glands, the kidneys, and the lungs. Often the idea of intestinal antiseptics is misunderstood, for many overlook the deeper and subtler meaning of the term, and dose the patient accordingly with chemical antiseptics, which are often provocative of additional mischief, and thus unwittingly bring a good rationale of treatment into disrepute. The temperament and vitality of the patient always deserve consideration.

It is, to be sure, an admirable intention to attack the typhogenic bacillus in its lair, but in order to eliminate both it and its family of toxins it is necessary to approach the germ with a well defined plan of campaign. The nourishment necessary to provision the fort should be selected in such a manner that, even if the enemy forages for it, it will do him no good. Under such circumstances it can be imagined that the invader, without necessarily being peppered with drugs, may succumb from inanition. All are familiar with the rapidity of propagation on the part of the typhoid bacillus, and all equally know what will destroy it.

Meat broths and milk constitute the best media for the cultivation of the typhoid bacillus; the query, therefore, frequently presents itself: Is not the administration of these animal products as a food to typhoid

patients quite out of harmony with the results of bacteriological teachings? Medicine may be said to be a succession of paradoxes: on the one hand, attempts are made to neutralize morbid elements with an antiseptic bludgeon, while on the other their propagation is encouraged by an abundance of suitable nourishment.

In this dilemma, I accepted the suggestion to exclude all animal foods, such as milk, meat, broth, eggs, etc., from the dietary, and substitute instead fruit-acids, fruit pulp, and vegetable infusions. Since doing this I have had every reason to congratulate myself on the perfection of a method which has given me such encouragement to believe that complete intestinal antiseptis is possible. The acid of fruit, whether acting through the blood or directly on the germ, is particularly antagonistic and destructive to the phenomena induced by toxins, and the poison germs are rendered powerless and harmless, their multiplication retarded, and a favorable soil on which to germinate taken away.

Many acid fruits contain also a moiety of nourishment which, in view of the cessation of digestive activity in the early periods of the disease, is quite sufficient to maintain life. The apple contains—of free acid 0.84 per cent., of nitrogenous matters 0.39, of sugar 7.73. The orange contains—of free acid 2.44 per cent., of nitrogenous matters 0.73, of sugar 54.59. The grape contains—of free acid 0.79 per cent., of nitrogenous matters 0.59, of sugar 24.36. These and other fruits are rich in potash and soda salts, and contain also salts of magnesia, iron, and lime.

The blood of the patient—a matter often lost sight of—requires a refreshing tonic to enable its phagocytes to keep up to the mark. One is inclined at times, in combating a disease, to give the patient less consideration than his complaint, so that very often it becomes a case of a patient resisting the disease plus the treatment.

The economy is endowed with a secretion possessing very powerful antiseptic qualities, which in health, besides being a digestant, also prevents putrefactive changes in the intestines—viz., the bile. In typhoid, the liver shares with the other digestive organs in having its functions held in abeyance, so that it is unable to exercise its properties as an

intestinal disinfectant. It is not unlikely that the treatment with acids stimulates the arrested function of the liver into activity, and into fulfilling its purpose. The administration of non-animal food relieves the liver of heavy work in the rôle it plays in the processes of metabolism, so that its whole energy may be concentrated in endeavoring to render the intestinal contents innocuous.

Since the adoption of the non-animal dietary, I have not had any occasion to complain of any aggravation of intestinal symptoms. There has been neither severe looseness of the bowels nor meteorism; there has been no higher temperature than 103° at night, and the morning remissions have been about two degrees; the tongue quickly assumes a moist appearance; the pulse becomes fuller and firmer; while the period of convalescence approaches, without prostration and sub-normal temperature, at the commencement of the third week.

My dietary regimen also includes infusion of barley, a substance rich in nitrogenous substances, iron, and phosphorus acids; rice infusion, which is rich in starch in a very digestible form; and oatmeal-water, which contains a large percentage of fats. As a jelly, I recommend Iceland moss. So far, the food consists of acids, nitrogen, starch, fats, and gelatin, all of a vegetable origin, together comprising the necessary elements to adequately compensate for the excessive waste due to the pyretic condition. I must not forget to mention another food which I have, under certain conditions, been in the habit of ordering, and that is the malt preparations. These are simply pre-digested starches, together with other nutritive substances. Toward convalescence, I permit a combination of ground malt, wheat flour, potassium bicarbonate, and water, which is warmed and stirred until it gets thick. As the starch gets converted into dextrin and sugar by the diastase of the malt, it becomes a thin liquid. This is finally boiled again, and strained through muslin. It is a very nutritious food, containing pre-digested starch (dextrin and maltose) and the albuminates (gluten and albumin) of the wheat flour and of the malted barley.

In typhoid, it is of value to pursue an investigation into the character of the tem

perature chart, for its variances are of the same interest and of similar importance as the sphygmographic tracings in heart disease. Fever, in the ordinary acceptance of the term, means that the otherwise regulated, harmonious and uniform balance of the nerve centre of heat is upset; some physiological disturbance has interrupted the normal workings of the system. In the disease under consideration, the elements of fever would be generated by the introduction of micro-organisms, produced within the alimentary canal, and directly absorbed there, plus the action of the toxins created within the system. It is probably to the influence of the alkaloidal poisons produced in the living body, on the nervous system, that the ultimate collapse of the patient is mostly due, and not so much to the high temperature. In any rise of temperature, a probable cause should be sought for. In typhoid, the fever is merely a symptom, resulting from Nature's efforts to clear from the system a poisonous and offending substance. The proper treatment would be, not to suppress the temperature by chemical antipyretics, but to assist Nature in her efforts to eliminate, and check the destructive action of, the original poison and its products. I cannot agree with those who attach no importance to a rise and fall of temperature of more than one or two degrees, for I am inclined to regard such variations in very much the same manner as a surgeon would a similar state of affairs after an operation. It will be generally observed that an untoward rise of temperature may be associated either with an aggravated pathological condition, with absorption of toxic material and consequent damage in the natural course of the disease, or with some indiscretion on the part of the patient.

In such cases, where other than expectant treatment is indicated, I prefer a mixture containing chlorine, with quinine, in doses of not more than half a grain to a grain, repeated every two hours—the frequency of administration having for its object a disinfection, not only of the contents of the bowels, but also of the intestinal walls; I also believe that it prohibits the development of fresh colonies of bacilli. Another mixture which I favor is the red cinchona bark in decoction. In this instance is had, in conjunction with the

tonic qualities of the cinchona, a strong percentage of tannic acid, which possesses powerful bactericidal properties, checking putrefaction and removing unpleasant odors. This mixture I give in cases where in my opinion it is indicated, in hourly doses. The infusion of roasted coffee has also very distinct antiseptic properties, exercising a marked deleterious action upon pathogenic organisms.—This action is not due to the caffeine, but to an empyreumatic substance formed during the roasting of the coffee.

In enteric fever the pulse undergoes many changes, calling for depressants, tonics, or stimulants. The pulse itself supplies a good deal of information, and should always be examined together with the heart. A well educated touch should be able to detect any modification, such as instability of rhythm, the character of tension, enfeeblement and exhaustion of the heart. The relaxed arterioles and dicrotic pulse of typhoid are due to the clearing of the blood of uric acid, by the rising acidity which the fever produces. As the fever comes to an end, and the acidity falls, the retained uric acid will be dissolved out, flooding the blood and producing severe uric-acidæmia, with a slow, high-tension pulse, subnormal temperature, and general depression. It is a well known law that pulse-rate varies inversely as arterial tension. During the continuance of typhoid, symptoms will arise indicating the administration of cardiac stimulants. It is a somewhat routine practice, in such instances, to resort to digitalis and alcohol, without any thought being given either to their physiological action or to the necessities of the case. The existence of a vaso-motor system, which superintends the tension or tonicity of the blood-vessels, is disregarded. The blood-vessels may become so relaxed that they offer no resistance to the action of the heart, which makes every effort, but unsuccessfully, to fill them. From excessive effort, the heart in consequence soon becomes exhausted. What is really indicated is a good vaso-motor stimulant, such as belladonna or atropine, which increases the fullness of the pulse and, in slowing the action of the heart, establishes a normal condition of resistance in the blood-paths.

Where there is impending cardiac failure I

order ether, frequently repeated, for its action is inclined to become fugacious; or strychnine, up to one-tenth of a grain hypodermatically injected, and atropine by the mouth. This combination, so far, has given me good results in removing depression of the circulation. Sometimes other conditions coexist, such as pneumonia with typhoid, when the appearances are so altered that a relaxation of the blood-paths and dilatation of the peripheral blood-vessels may be deemed expedient, in order to enable the cardiac ventricles to rid themselves of the blood which, by rapidly accumulating, produces paralytic distention. In such cases the employment of the nitrites is suggested, but their use should be restricted to the production of but temporary vaso-motor depression, as they otherwise endanger the integrity of the heart muscle.

Among other points to be considered is the condition of the pupil. The contraction of the pupil is induced by stimulation of the oculo-motor centres. Paralysis of the optic induces dilatation. When the oculo-motor is divided or paralyzed, the pupil also dilates. Stimulation of the sympathetic dilates the pupil; division contracts it. The radiating fibres in the iris are innervated by the sympathetic, causing dilatation of the pupil, while the oculo-motorius innervates the circular fibres. It is said that the size of the pupil follows exactly the oscillations of the cerebral circulation. Congestion of the brain and its membranes, the result of paralysis of the cervical sympathetic, produces contraction of the pupil, while in irritation of the sympathetic, such as in ischæmia of the brain, syncope, strong emotions, and powerful irritation of the sensory nerves, the pupil dilates. When the function of the brain is temporarily suspended, the pupils are dilated and fixed. Reaction is heralded by an alteration in the pupillary state. The pupil is dilated in typhoid, and even in sleep this condition remains unaltered. In approaching collapse this is often a premonitory symptom, while the commencing normal state of the pupil denotes approaching convalescence.

In conclusion I may add that the study of typhoid in all its complexity and variations must always possess special claim to the inquiring and investigating mind, such as does

not obtain to any other affection; and this feeling of interest becomes more markedly accentuated when it is remembered that a clear comprehension of the observations which I have attempted to set forth may be strongly marked by effectiveness in result.

Melbourne, Australia.

NECKEL'S DIVERTICULUM(?)

BY J. M. MATHEWS, M.D.

I had what might be considered a rather unique case a few weeks ago. One of the best physicians in the country, who is at the present time President of the Kentucky State Medical Society, referred a young married woman to me, stating in his note that it was a unique case as far as his experience went (which is very great) and that he had never seen a description of anything of the kind. Being greatly attached to the family, he bespoke my very kindest consideration of the case, meaning that no dangerous operation be performed. The lady, perhaps twenty-five years of age, reported to me that six years before she had given birth to a child; one year later, while walking on the street, she noticed the protrusion of a tumor from the rectum, and had to hurry home on this account, suffering meantime great nausea and pain. The physician summoned reduced the tumor, when the nausea and pain ceased. About three months later the same thing again occurred, and afterwards at intervals of several months. At last her physician administered chloroform to thoroughly investigate; then wrote me, as stated.

I told her I disliked to give chloroform for the purpose of examination, as her physician had informed me that under an anæsthetic nothing could be found. The third day after her arrival the tumor protruded from the anus when I was hurriedly summoned, to find her suffering great nausea and considerable pain. The tumor, I should say, was about the size of a small orange. In putting my finger around it I found what might be called a pedicle which felt like an umbilical cord, except that it was much wider. I sought for its attachment until I put my finger into the sigmoid flexure, which I could do in this case by the patient bearing down slightly; but

the attachment was much beyond that. At first I did not know what it was, as it was not a polyp or anything of that nature; it felt as if the contents consisted of a fluid, except that they were a little more solid.

The next morning the tumor, after the act of defæcation, protruded again, when I anæsthetized her in the presence of three or four physicians. I could not tell what the contents of the tumor were, neither could I find its attachment, but I decided I would ligate and cut it off at as high a point as possible. This was done, and to my surprise one of the physicians standing by said the contents consisted of fæcal matter. It did look very much like it; the odor resembled that of long-decomposed fæces. The patient was put to bed without shock. I watched her carefully for several days; her temperature went perhaps half a degree above normal; pulse never above 80. On the fourth day she developed a very bad cough, and Doctors Marvin and Dabney saw her with me. The cough, however, was found to be due to some abnormal condition of the uvula, which was relieved by proper measures. Bowels moved on the fourth day as a result of saline purgatives, there being a copious discharge of fæcal matter, and no distention of the abdomen. I kept the patient under observation for two weeks, her bowels moving every day.

I submitted the specimen for examination to Doctor Weidner, who came to my office on the third day after receiving it and remarked: "I suppose your patient is dead, as I found fæcal matter in the specimen." I replied: "On the contrary, she is doing well." As to an opinion of the tumor itself, he said the outside and inside were "composed of mucous membrane." I could scarcely understand that anatomically, but in response to a query he added it was probably "a diverticulum of the colon;" that there must have been, during an attack of dysentery which this woman had suffered when twelve years of age, a rent in the colon, forming a pocket of the mucous membrane, into which fæcal matter discharged—at last, twisted upon itself and by gravity assuming this shape, it became elongated sufficiently to protrude through the anus; that for eight or ten years at least the fæcal matter had been contained within

the tumor.—He could account for it in no other way.

I confess, as the patient recovered, I thought perhaps it was different from that. I could not imagine a diverticulum exactly answering the description of this one in manner of appearance, shape, and contents, which latter under investigation certainly proved to be composed of fæcal matter. I thought perhaps it was a follicle that had become much distended and elongated, and gradually by force of gravity had fallen sufficiently low to protrude out of the anus.

The woman returned home at the end of six weeks, and I had a letter from her husband recently which assured me she was doing well.

I have spoken about the case to a number of surgeons in Louisville, New York, and Philadelphia, and Doctor Hearne of the latter city said that if he had performed such an operation, with the history that I gave him, he certainly would have supposed he had opened a hernia. It is difficult to explain the nature of the condition, when it is remembered there was mucous membrane on the inside as well as the outside of the tumor. I confess the case was and is a mystery to me, and those with whom I have talked on the subject have been at a loss to explain it.

Louisville, Kentucky.

MECKEL'S DIVERTICULUM.

BY A. MORGAN CARTLEDGE, M.D.

I had the fortune not long ago to see a most remarkable diverticulum—a specimen entirely unlike anything heretofore reported.

A very robust young man, thirty years of age, handsome and of powerful physique, on Sunday visited his mother-in-law on the other side of the river; he ate a hearty dinner about twelve o'clock, and says that in the afternoon he was seized with violent pain in the abdomen, when a physician was called from Jeffersonville, Indiana, who gave morphine hypodermatically. Later in the evening his physician from this city was called, who repeated the hypodermatic injection. The next morning the patient vomited and complained of intense pain. I saw him at twelve o'clock on Monday; meantime the physician

in charge had given another injection of morphine, and when I reached the house he was feeling quite comfortable, with pulse of 80; vomiting had ceased under the administration of opium.—He had vomited a large quantity of greenish-tinged serum. The abdomen was tympanitic; bowels had not moved under purgatives and enemata—even an enema of glycerin was ineffective. He rested comparatively well all Monday night, but Tuesday morning began vomiting again, and continued almost incessantly until noon. Operation was advised Tuesday morning, but was not accepted until evening. At seven o'clock that night I opened the abdomen, and as soon as the peritoneum was incised a little serum, probably one or two ounces, escaped. Immediately after this there rushed out of the opening a mass about seven inches long which looked like a large sausage; this was the first thing which presented in the incision. The mass was brought up carefully and was found to spring from the small intestine; it was greatly distended, as was all the intestine above the obstruction, and just capping the end of it was a little apex about half an inch in height and quite thin, seeming to be composed of nothing but peritoneum. Further investigation revealed the fact that this diverticulum came off at right-angles from the small intestine, and was quite as large in diameter as the intestine itself above that point. About five inches below the diverticulum was the point of obstruction of the bowel, and, as well as could be made out, it was a condition of torsion that must have been produced by this diverticulum. There was a decided twisting, and one of the mesenteric folds had adhered over this twist, which evidently corresponded to the point of obstruction, having become more or less organized and binding the intestine down so firmly as to cause collapse below the constriction. In separating the adhesive band, the peritoneal surface was necessarily denuded half-way round the bowel at that point. When the constriction had been relieved, the gas and fæcal matter from above quickly passed below the diverticulum into the bowel which had before been collapsed.

The question at this point was, what procedure had best be followed in repairing the

intestine, and whether to remove the diverticulum; but just at this stage of the operation the patient became very weak and it was evident that we must get him off the table quickly. I decided it would be best to close the cavity, leaving the raw surface of the bowel, and trust to a friendly adhesion somewhere, rather than to endanger the patient's life by further prolonging the operation. He did well, and was discharged at the end of three weeks.

I report this as a peculiar case, the diverticulum being fully seven inches in length and as large as the segment of bowel from which it was given off. I believe it was instrumental in producing the condition that caused volvulus and obstruction of the bowel.

Louisville, Kentucky.

APIOL IN TERTIAN INTERMITTENT.

BY DOCTOR DENIS.

Case 1.—M. G—, baker, aged 63, of feeble constitution and bilious temperament, presented himself after having had five distinct accesses of tertian fever. On March 16th I ordered him one gramme of apiol in four capsules. On the 17th there was a fair access of fever. On the 18th I ordered four more capsules, with the result there was no subsequent appearance of the fever. The apiol, however, was continued four days more in diminishing doses.

Case 2.—F. G—, aged 27; strong constitution and bilious temperament. When I saw her she was in the midst of a fourth attack of tertian intermittent. The saburral condition of the tongue, anorexia and nausea led me to begin treatment with an emeto cathartic, which however did not prevent a fifth access of the fever, an attack that was prolonged from 11 A.M. one day until the middle of the next forenoon. I then ordered five minims of apiol every two hours. Two days later the fever barely appeared in the afternoon and persisted, all told, less than two hours, though it was characterized by tolerably violent headache and profuse perspiration. Apiol was then ordered to be taken for four days in gradually diminishing doses. No subsequent attack of fever occurred, and the patient resumed her regular course of life and labor.

Case 3.—M. G—, aged 43; good constitution and plethoric temperament; never had

any grave malady. Had already suffered five accessions of fever when I saw her on April 7th. The most prominent symptom manifested was gastric embarrassment, which led me to at once administer a seidlitz draught. The sixth accession came on the day following, quite as intense in character as any preceding. April 9th I ordered four minims of apiol to be taken every four hours. On the 10th the attack recurred, with intensity and in the three stages. On the 11th, four more doses of apiol. On the 12th the attack was limited to severe cephalalgia, of somewhat brief duration; no chills and no perspiration. Four capsules of apiol on the 13th, with the result of a missed attack the succeeding day. The medicament was continued several days in gradually diminishing doses, with most satisfactory result.

Case 4.—F. B——, widow, aged 65; good constitution; never had any severe malady. Was attacked with tertian intermittent April 21st, the fever being very severe; attack repeated with equal intensity April 23d. On the 24th I saw patient for the first time; she was greatly prostrated, suffering intense nausea, unable to partake of food of any kind, the pulse weak and slow, and tongue covered with a thick whitish coat. Ordered a large dose of sal Rochelle to be taken at once. The succeeding attack on the 25th was even more violent than those preceding, and accompanied by great prostration, feeble but very rapid pulse, though with considerable abatement of subsultus tendinus; the attack was so severe I feared a recurrence would prove fatal, and not daring to trust to apiol I prescribed quinine muriate in hourly doses. On the 27th there was no repetition of the attack, barring slight cephalalgia with sensation of compression through the temples. The quinine was continued until May 6th, in spite of which there were daily slight suggestions of fever of remittent character, manifested usually in the evening. May 8th the original form supervened in all its former and pernicious intensity, accompanied with diarrhoea and recurring attacks of syncope. Apiol was now ordered; on the 9th the patient was in an extreme condition of debility; on the 10th the attack was so slight as to be unworthy of notice except for a little cephalalgia and lassitude. Apiol continued until the 20th, with absolutely no further manifestations of the malady, when patient was discharged and immediately resumed her accustomed household duties.

Case 5.—Miss G——, aged 16, subject to tertian intermittent with more or less frequency during several years, but more ap-

parent in the last two, during which she has not failed to have at least one attack each month; at times the fever recurred daily, and latterly had merged from a tertian type into the quaternian. Good constitution; plethoric temperament; menstruation suppressed. Up to the 6th of September she had sedulously employed quinine and kindred remedies, to no avail. I first ordered a free purgative dose of sal Rochelle, to be followed on apyretic days by thirty minims of apiol daily divided into four doses; later to be reduced to twenty-four minims daily; and finally to sixteen minims. There was no access of fever after my visit, and the patient was discharged after eight days. The menses appeared at the next period as usual, being marked by no peculiarity except greater comfort than had ever before been experienced during the flow.

Case 6.—J. G——, aged 22, feeble constitution and bilious temperament, up to September 20th had already suffered six attacks of tertian fever. On this day I ordered her two capsules of apiol, four minims each; and the pyrexia, due to appear the following day, failed to evince itself—only a very little cephalalgia, and a brief period of slight perspiration. On the 22d she took two more capsules of apiol; no fever on the 23d. Dose reduced to one capsule daily on 25th; patient discharged on the 27th.

Case 7.—M. H——, artisan, aged 22, had for three months suffered from tertian intermittent, and when admitted to hospital, July 18th, presented a spleen notably engorged and the yellowish cutaneous tint that is so indicative of general anæmia. For five days he was given daily four capsules of apiol, each containing four minims, and the fever yielded completely after the second day. Discharged July 26th.

Case 8.—M. G——, aged 14, had suffered three distinct accesses of quaternian fever when she came under my care. I had her take three capsules of apiol the day preceding the fourth seizure, which completely overcame the fever. The medicament was persisted in for four days longer, with perfectly gratifying result.

Case 9.—M. B——, day laborer, aged 30, habitually well, about the middle of July was seized with a tertian fever that persisted up to August 12th. She took apiol, the usual quantity, on each apyretic day for five days, and, though some cephalalgia and perspiration was experienced, the fever did not return. Fifteen days later she was in good health.

Case 10.—F. M——, husbandwoman, aged 53, had suffered for six days with tertian fever, of which she had been twice supposedly cured with quinine the month before. I prescribed five capsules of apiol to be taken the 20th of July, her apyretic day. On the 21st the fever was entirely overcome. On the 22d five more capsules. No fever on the 23d. The three succeeding days she continued the medicament in gradually decreasing doses, and when I saw her again two months later she reported having enjoyed constant good health.

Case 11.—L——, day laborer, aged 19, had fever daily for seven weeks prior to entering hospital, August 4th. His yellow complexion and lack of appetite, along with a spleen considerably enlarged, gave evidence of digestive derangement. I immediately put him upon apiol treatment, but the fever persisted eight days longer. Finally the dose of the medicament was increased to five capsules daily (twenty-five minims), when the pyrexia succumbed. The dose was then progressively diminished, and the patient discharged perfectly cured twenty-two days from the date of entrance. I have no doubt the result would have been attained more speedily had I begun by thoroughly clearing out the primæ piæ with saline purgatives.

Case 12.—P. M——, aged five years, had suffered for a month with a well defined quotidian intermittent, when I was called. This child was in the midst of most unfavorable hygienic surroundings, being badly lodged, worse clad, and ill-nourished; was moreover thin, yellow, and thoroughly anæmic. I had him take three minims of apiol every morning for four days, and after the very first dose the fever was checked. I continued for ten days, however, by which time the patient had fully recovered, and good appetite was established.

Case 13.—J. G——, roofer by occupation, aged 41, was seized toward the end of August with a severe attack of tertian fever, which returned again on the 3d and 5th of September with increased intensity, in spite of the fact he had taken large quantities of quinine. Languid; constant headache; no appetite. September 6th I gave him five capsules of apiol, to be taken one every two hours. This was repeated on the 8th and 10th, but there was no return of fever during either interval. I continued the medicament three days longer, however, giving but a single capsule three times a day, which insured perfect relief from the malady.

Case 14.—P. M——, aged 19, shoemaker,

had suffered for a month with quotidian ague. For five consecutive days I ordered apiol taken in doses of five minims each, five times daily. I regret to say, however, that the medicament seemed unable to compete with the attacks, which were relieved only on having recourse to quinine.

Among all the patients I have treated with apiol this is the only case that I recall that definitely and wholly resisted the febrifuge action of the remedy. To be sure, many patients for whom this remedy was prescribed failed to return and report progress, a circumstance no one will be surprised at who is at all familiar with the customary negligence and heedlessness of the French peasant; and it would be hardly fair to imagine that they were all relieved.

Case 15.—L. K——, farm laborer, aged 36, of strong constitution and plethoric temperament, had never had any severe sickness until seized with quotidian fever. At the fifth access I prescribed for her a single capsule of apiol containing five minims; fever did not recur. The patient continued the use of apiol in the same dose for five days, with the result that there was perfect relief.

Case 16.—J. G——, sailor, from the Island of Arz, aged 54, naturally well, was attacked by tertian fever a month previous to my seeing him. This was readily abrogated by fifteen grains of quinine muriate given in divided doses. Three weeks later, however there was a return of the fever, and after the third access I prescribed fifteen minims of apiol daily, divided into three doses, which was continued for four days. Following this the dose was reduced one-half for four days more, with the result of perfect relief.

Case 17.—G. A——, aged 33; good constitution; plethoric temperament; attacked October 8th by a severe access of tertian fever, which recurred on the 10th and again on the 12th with its three regular stages and with the same intensity as the first seizure. On the 13th I gave him fifteen minims of apiol in three doses, with the result that on the 14th the chill was delayed three hours and after all was but very slight; no perspiration. On the 15th a like amount of apiol was prescribed, with the result that on the 16th the access was characterized only by cephalalgia. From this time out there was no recurrence of the attacks.

Case 18.—L. M——, gardener, aged 5, came to me in February complaining of having suffered from tertian intermittent fever.

of the most tenacious character during the previous four months. Each access, characterized by three stages—chill, fever, and perspiration—lasted twenty-four hours. Not being able to obtain apiol at this time, I administered quinine, first in doses of fifteen grains daily, later increasing to sixty grains daily, for about ten days. This induced sensible abatement in the length of the seizures, which finally entirely disappeared. But three weeks after the last attack, the fever returned in precisely the same type. I again began the use of quinine, and in order if possible to prevent return after the medicament had been withdrawn I ordered wine of quinquina. The latter was taken at varying intervals for some months; nevertheless irregular recessions of fever persisted until the 8th of November. I was now able to secure apiol again, which I immediately prescribed in doses of fifteen minims daily, with the result that the fever was broken. I then ordered one five-minim capsule to be taken every morning of the apyretic day. The result was the subsequent attacks were scarcely perceptible, being characterized only by slight headache without chill or perspiration. Three capsules of five minims each, given daily for five days, effectually prevented any further return of the malady, and the patient has never suffered therefrom since.

Case 19.—J. M. D——, farm hand, aged 14, had suffered two years from quaternian fever that merged gradually into tertian and finally into quotidian. Formerly very robust, when she came to me she was exceedingly thin, pale, and anæmic; was on the point of losing her place from the fact that she no longer possessed sufficient strength to fulfill her duties. I prescribed for her eight capsules of apiol, five minims each, to be taken during two days, with the result that the fever disappeared without recurrence. Several months later I learned that cure was complete, though, like most French peasants, she neglected to afford me the desired information.

Case 20.—Q——, weaver, aged 66, of strong constitution and plethoric temperament, had suffered a fifth attack of tertian fever at the time he consulted me. I ordered him four capsules (five minims each) of apiol on each apyretic day. The fever reappeared after the first dose, but the access, instead of lasting sixteen or seventeen hours, occupied two hours only, and did not again recur. The patient took four more capsules of apiol, with the result that he has since enjoyed perfect health.

Case 21.—F——, aged 48, of good consti-

tution and nervous temperament, had been subject for five years to irregular attacks of quaternian fever which from time to time—twenty in all, so the patient declared—had been broken up by large doses of quinine. She had also taken quantities of succedaneums such as are employed in the domestic practice of the peasantry, without the least benefit. At the time I saw her she had become anæmic and emaciated; complexion of a yellowish-bronze color; extremities highly oedematous; moreover, her character had suffered from the malady rendering her restless and irritable. I immediately prescribed fifteen minims of apiol to be taken the morning of the first apyretic day; a second and like dose was ordered for the succeeding morning, and a third for the following evening. In attempting to carry out my instructions she succeeded in ingesting the first two doses, but at the moment of taking the third was seized with emesis and bilious diarrhoea. She was so alarmed thereby, because of the debility that resulted, that she feared to take the third dose. Nevertheless she slept soundly that night and late into the next morning, which was the day for the fever to return, whereat she was agreeably disappointed. The apiol was continued for nearly a month in gradually diminishing doses, and effectually prevented any recurrence of the fever, and she regained her customary previous good health.

Case 22.—M. B——, aged nine, had suffered for a year with fever of the tertian type, at times varying to quotidian. During the last three months before she presented herself, the fever had returned regularly every two days, in spite of the employment of large doses of quinine. Ten minims of apiol, twice daily, was amply sufficient to relieve her. After the first two doses the fever appeared much less severe, and, after the fourth dose had been taken, disappeared entirely.

Case 23.—P. C——, road laborer, aged 45, dark, strong, of sanguino-bilious temperament; had several severe illnesses, and fifteen years before had suffered for a year and a half with intermittent fever which passed through all the types—he was then in Austria, of which he is a native, living in a district where malarial fevers habitually prevailed. On May 25th he drank, while heated, a large quantity of cold water, and was at once seized with a chill, followed by high fever and headache which lasted the entire afternoon and well into the night, succeeded by abundant perspiration; he also complained, at the same time, of a stitch in the right side;

coughed somewhat. I saw him May 26th about 10 A.M., when he was at the end of the attack. His pulse was about 80, and the cough and stitch in the side persisted, though auscultation revealed nothing abnormal about the chest. The tongue was covered with very thick yellowish mucus; he also complained of a burning sensation at the epigastrium, and had had no appetite for several days. I prescribed an emeto-cathartic, which induced abundant vomiting and also free catharsis during the afternoon. That night he slept well, and on the succeeding morning was disposed to resume his labor, but about 2 P.M. was seized with a chill much more intense than the first, followed by fever and perspiration which did not cease until about noon of the 28th. I saw the patient in the midst of his access, and prescribed for him two capsules of apiol, five minims each, to be taken that evening; four more capsules to be taken on the 29th; also ordered repose and half diet. The directions were carefully followed, with the result that on the 30th there was no fever. On the 31st, four more capsules of apiol. June 1st, no fever. June 2d, four capsules. June 3d, and the following days, no fever. The patient resumed his labor and habitual mode of life, with no recurrence of the malady.

Case 24.—C. A——, artilleryman, presented himself February 11th suffering from quotidian intermittent fever. The first day he was given two capsules of apiol, each containing five minims, and on the third day four capsules. After the first day the fever subsided. Six more capsules of apiol were ordered, however, to prevent relapse.

Case 25.—C. A——, laborer, appeared, February 10th, with quotidian intermittent fever, and three doses were given him on the 11th, with the result that the access due on the 12th was postponed until the night of that date or the morning of the 13th. Three capsules were, however, administered on the 12th, and three more on the 13th and 14th. On the 15th he appeared well. Three more capsules, however, were prescribed on the 16th, when the patient was discharged. He reported on the 25th that there had been no return.

Case 26.—R——, soldier, presented himself, February 11th, suffering from quotidian intermittent. Two capsules of apiol were immediately administered, and there was no return of the fever on the succeeding day. Apiol was continued in daily doses of fifteen minims for three more days, with the usual satisfactory result.

Case 27.—P——, soldier, appeared on the same day as his companion R——, with the same type of fever, and received the same treatment, which, however, did not produce as rapid results. On the 12th there was apyrexia, nausea, slight epigastric pain; nevertheless three capsules were ingested. On the 13th there was slight febrile access,—three more capsules. On the 14th complete apyrexia,—the usual amount of apiol prescribed; 15th, three capsules, no fever, and no recurrence up to February 22d—eight days—when the patient was taken down with a new access. Three capsules of apiol were immediately administered, and on the 23d three more, but nevertheless the fever recurred on the 24th. At this date the apiol was reinforced with quinine, with the result the patient was discharged after a few days perfectly cured.

Case 28.—N——, soldier, entered the hospital on the 15th of February suffering from quotidian intermittent. Three capsules of apiol entirely overcame the fever, but the remedy was continued for several days in order that we might be sure of its effect.

Cases 29, 30 and 31 were practically of the same character as the other cases of quotidian fever already cited, and were relieved by apiol.

From the foregoing observations I cannot but conclude that apiol is one of the most successful remedies available in the treatment of simple intermittent fevers. Some experience with it, however, in the West Indies leads me to believe that it is not so satisfactory as quinine in the grave intermittent fevers of the tropics; however, here quinine also often fails.

Auray, France.

Clinical Reports.

SOME PECULIAR CASES.

BY E. J. KITSON, M.D.

Tumors of Breast and Axilla.—Mrs. C——, aged 64, married, of English nativity; father died of inflammation of the bowels, at a good old age, but had always enjoyed good health till a week before death; mother died of heart disease, suddenly—age unknown—and had been in delicate health for some years. Of four brothers, two died, respectively at twenty-four and seventeen, of cardiac disease; the others are alive and well, so far as known. Of five sisters, all are alive and healthy save

one, who died at the age of twenty-eight, of cardiac disease, having been always delicate. Patient has had five living children and five miscarriages. Those now living are all strong and apparently healthy, ranging in age from thirty-two to nineteen years.

When young the patient had an attack of smallpox, which, however, left no scars; in other respects she has been healthy. Regarding present illness, she first noticed a lump within left side of neck, which "broke," the discharge being devoid of odor. This was followed by two more tumors on the right side of the neck, with same course and history; these appeared over six years ago. Then a lump appeared in the right mamma at its upper and inner aspect, followed in four or five months by lumps in the axilla of the same side. The lumps in the neck had been hard, apparently solid, painless unless squeezed; never soft, though they broke and discharged matter. The skin broke and the tumors ulcerated downwards. The ulceration gave rise to a great deal of pain—of a darting, stabbing character—which passed through the shoulder to the back, more troublesome in the day-time, especially damp days. She could not lie on the right side, on account of the suffering induced in this side. She cannot recollect ever having received a blow or any injury to the breast. The tumor was painful at the time of my first seeing her (September 20th), and had been so for a week before, and was greatly relieved by a lotion of carbolic acid (1 to 40). Appetite poor; is troubled with vomiting of a bitter, watery, sour-smelling fluid, with a feverish tinge. The sore is above the right breast, to the edge of the sternum, about the level of the third rib—two inches in diameter—with an edge of about half an inch broad below, which is irregular; it is very adherent to the ribs, tender but not hæmorrhagic to the touch, and has angry-looking edges, which are less in extent at the upper and inner margins than elsewhere; discharge quite free and offensive. There are two lumps in the axilla, and scars of former abscesses. The nipple of the affected side is drawn downward and retracted.

September 22d: The carbolic lotion has made a slight improvement as to general surface, and the edges where they were once red and angry appear more healthy; granulations on the lower part have almost disappeared. She suffers no pain, and reports she can sleep on the right side, which was before impossible. The discharge continues but is not nearly so offensive. Complaints of flatulence, shortness of breath, and of being weaker, though easier. No trace of any abdominal tumor can be found.

September 23d: Decidedly better; sleeps very well; appetite capricious; pain in sore entirely ceased, and the sore itself is no longer tender, though at the upper and inner edge of the ulceration there is a hole the size of a pencil going down deeply, as it were between the ribs; the discharge is less profuse and less offensive than on the 20th. Has a little cough, but no expectoration. Bowels quite regular. Urine scanty and passed only twice in twenty-four hours; no sugar or albumen; when normal, specific gravity is 1.025. Pulse 84, normal and regular. The granulations noted at the first visit have become a raised band of tissue across the lower edge of the sore.

The subsequent condition of the patient was one of steady improvement, and on the 23d of October, on calling to see her, I found she had gone to Toronto. The sore was entirely healed, I was informed by her daughter; and on seeing her again some months later she appeared quite free from any further trouble in this direction.

Senile Gangrene.—Mrs. W—, aged 84, widow, living in Waterdown, Ontario, was admitted into Hamilton City Hospital on June 1st, 1889. Some months before she had noticed a sore spot on the right foot, which turned black and discharged from various parts very offensive material. She thought she had injured the foot in some way in the preceding spring. The spot became gangrenous, and sphaceli formed on the outer side. A charcoal poultice was applied, which to some extent relieved the pain, and also the fœtor of the discharge. The line of demarcation having at last formed, a consultation of the staff of the hospital was called, at which amputation of the diseased part was unanimously resolved upon.

This operation was performed, June 4th, at the junction of the middle and lower third of the leg. All hæmorrhage during the operation was satisfactorily controlled by the use of elastic bandage and Esmarch's tourniquet. A drainage tube was introduced, coming out at each side, and the wound closed by silk sutures and dressed antiseptically.

On June 5th there was no pain or discharge, and the temperature remained normal; pulse regular and firm.

June 6th, some slight discharge had appeared on the dressings during the night, so a towel had been wrung out of hot bichloride solution, 1:2000, with protective between the third and the fourth layer of the towel, and applied, and kept in place by a bandage. This was removed, and on exposing the surface of the wound (under an irrigator) I

found the line of operation reddish at two places on the anterior flap, just at the point of insertion of two of the stitches—these were removed and thus the tension was relieved; otherwise the wound was looking well. A hot solution of bichloride 1:2000 was used around and in the wound, which when dried was again covered by protective dressings.

Everything went on for the next few days in a satisfactory manner, and on June 11th the dressings, having again become moistened by the discharge, were removed under the irrigator, and the wound was washed with bichloride as before. Two more stitches were removed. There was no odor perceptible, but the mackintosh was stained black in the centre. There was no sense of discomfort complained of, and the stump was re-dressed. Bowels moved regularly, and the temperature was normal. She only complained of a stinging sensation in the front flap—no erythema.

June 13th, she was quite comfortable and doing nicely.

June 15th, complained of some pain, and temperature had risen to 99°. Removed the dressings, under irrigator, and excised part of a tumor that was slowly sloughing away; then dressed as before, after removing one-half of drainage tube.

On the evening of June 16th, being anxious to know how the stump was getting on, she removed the dressings herself.

June 17th, the scar of the operation was dressed with ointment of boric acid on lint. From this time onward she steadily progressed, and was discharged shortly after with a useful stump.

Jaundice from Obstruction of Ductus Communis Choledochus; Cholecystotomy; Death.—W. N.—, aged 41, male, blacksmith. Family and previous history good. Has had gonorrhœa, and as a consequence a stricture which only permitted a No. 7 English catheter to pass. While engaged in "washing" on the 25th of January, 1888, he received a wound on his heel, which entirely closed in three days. One week later, while at work in the railway shops, surrounded by a thick smoke, he felt very ill, and his companions summoned medical advice. He gradually grew worse; complained of fever, loss of appetite, vomiting, diarrhœa with clayey stools, and headache. Urine was very high-colored. An egg-shaped tumor was discovered in the region of the gall-bladder.

Admitted to Hamilton City Hospital May 19th, 1888, suffering from distention of abdomen. Was jaundiced deeply and complained of loss of appetite, frontal headache,

sleeplessness, and a pain in region of gall-bladder, which extended—so he declared—upwards and backwards to each shoulder, and downward to the symphysis pubis. Urine deeply jaundiced, passed in small quantities about every four hours. Abdomen was tympanitic in front, but gave the characteristic wave of ascites in the flanks, where there was dullness on percussion. Pulse slow, about 50, and so continued until toward the end. Much expectoration of blood-stained mucus, which gave the characteristic reaction to nitric acid. He was ordered a mixture containing nitromuriatic acid, taraxacum and tonics, to be taken after meals; also half a drachm of calomel at bedtime when required. There was no improvement, however, and early in June a consultation was deemed advisable.

June 4th he was tapped to relieve the pressure of the ascitic fluid (after we had drawn off eleven and a half pints of urine), which gave the characteristic bile reaction and was deeply discolored. Not all the fluid was removed, as the cannula got blocked, and he complained of great weakness, for which two ounces of whiskey was given.

June 7th the patient was put under ether, and an exploratory incision four inches long made over region of tumor. Hæmorrhage having ceased, the peritoneum was cut into, when a considerable quantity of ascitic fluid escaped. The distended gall-bladder was fixed, tapped, emptied, and carefully explored, but I was not able to determine the cause of distention. The orifice of the ductus choledochus was blocked, and the duct itself filled with inspissated bile; on the inferior and right side of the liver were two or three hard nodules, which I thought were masses of scirrhus. The abdominal cavity was then washed out until the hot water came back quite clear. After drawing the wound in the gall-bladder to the surface, I fastened it to the edges of the abdominal incision with three fine sutures, passed into the gall-bladder a medium-sized drainage tube, then stitched together the edges of the abdominal wound as far as was advisable. The wound was dusted with iodoform, and protective and carbolic dressings applied, the whole being covered with absorbent cotton and a large flat sponge. The patient stood the operation fairly well. A bridge over the body kept the bed-clothes from pressing on the parts.

June 8th, he reported having passed a very fair night; nevertheless at 11:30 A.M. he died.

A post-mortem could not be obtained which was unfortunate, as some points of interest and doubt might thereby have been cleared up.

Hamilton, Ontario.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MAY 11th, 1896.

Editorial.

CRETINISM TREATED BY THYROID.

Up to quite recently the utility of the thyroid gland was neither understood or appreciated; there was not even a hypothesis

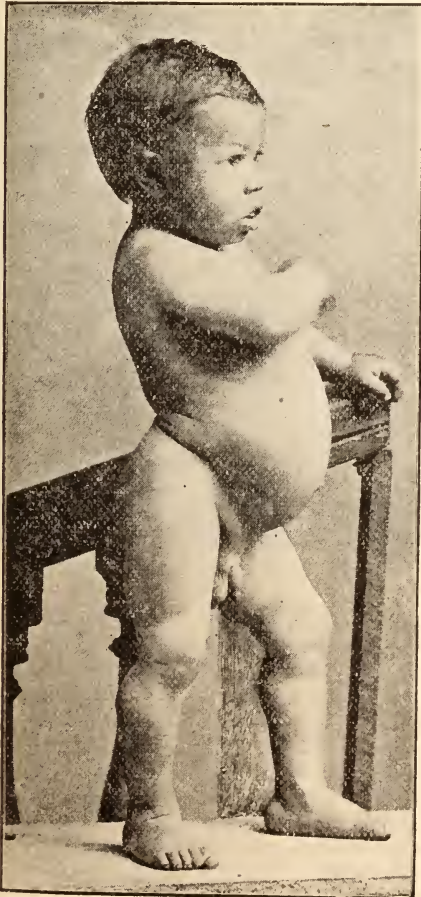


FIG. 1.—At beginning of treatment:

advanced as to its function, and it was even thought it might be entirely excised, completely disorganized, or destroyed, without harmful results. The researches of Schiff, Horsley, Murray, and others, however, have shown that the thyroid plays a momentous rôle in normal metabolism, and that the condition of this organ has a marked influence



FIG. 2.—At beginning of treatment.

in the production of myxedema. At a still later date Ord called attention to the fact that cretinism is but a congenital form of myxedema.

Recently Doctor H. H. Vinke reported a case of sporadic cretinism successfully treated by thyroid extract that is so pertinent in its bearing that we reproduce it herewith, along with copies of special photographs the author was kind enough to send us.

The little patient was first seen September 2d, 1895, when his appearance was so characteristic there was no difficulty in arriving at a diagnosis. He was born in the State of Missouri, his father being a healthy German thirty-eight years of age, his mother a native of the United States and three years younger. The mother has always had excellent health up to seven years ago, when she developed epileptic attacks, or seizures simulating this malady. Six brothers and sisters, ranging from eight months to ten years of age, were all healthy

He developed laterally, but gained little in height. Limbs crooked, fat, and clumsy; slept much and ate little; fecal discharges always peculiar—large in volume, abundant in quantity, and hard.

When I first examined him he was about the height of a child two years of age; head enormous, covered with a dirty layer of dandruff, the anterior fontanelle not yet closed. Presented the idiotic expression of cretinism; face broad, nose flat and turned up; face and lips much swollen; tongue much enlarged, generally protruding from the



FIG. 3.—After two months' treatment.



FIG. 4.—After two months' treatment.

and well developed; one brother died in childhood of some febrile malady.

He himself was born six years ago, after a slow and tedious labor lasting three days; no instruments were used. The mother was certain the period of gestation was prolonged to ten months. When born he exhibited an extraordinarily large head, broad face, thick lips and tongue, and his voice appeared different from that of other children. Physical and mental development slow; not playful; took little interest in surroundings; could with difficulty be made to laugh or notice things; was nineteen months old before he could stand up.

mouth. Neck short and thick; body and extremities much swollen,—general appearance not unlike that of an extremely fat baby. Arms, fingers, legs and toes short and plump. Skin over the entire body, instead of being natural (soft and warm), was cold, hard, unpliant, never moist from perspiration, and exhibited no pitting on pressure. Abdomen enormously large and tympanitic; no enlargement of liver and spleen. Side view exhibited marked lordosis, more prominent about the lumbar region. Testicles not descended; scrotum and penis small. Joints stiff and somewhat thicker than usual; legs curved. Walked with difficulty

and in an uncertain, tottering manner, falling readily when knocked against. Hair stiff and scant, and lacking in lustre. Could employ but few intelligent words. Voice coarse and unnatural. No difficulty in deglutition, but swallowing was accompanied by a peculiar gurgling noise. Dentition delayed, but teeth fairly good. Hearing, taste and smell apparently normal. Heart normal; pulse 110 per minute; temperature slightly subnor-

warm, and natural; anterior fontanelle nearly closed; no gurgling noise when swallowing; voice natural; took lively interest in surroundings, and delighted to play with other children, but had lost his good-natured disposition and was easily irritated. Did not sleep more than other children, and had become an early riser. Also had an enormous appetite, though constantly losing weight. Was able to walk five blocks, which he had never done before. —The mother thought his head had sunken in, and that his joints were more supple. Indeed, his general condition, physical as well as mental, was considerably improved, although still in appearance he was markedly cretinoid.

At the end of five months the change was most remarkable. The patient had now a healthy appearance, and his face was intelligent and natural; the œdema of the skin and subcutaneous tissue had disappeared, and an abundance of soft and natural hair covered the head. The anterior fontanelle had entirely closed; the dandruff and scales disappeared; and the lordosis and prominence of the abdomen were scarcely noticeable; skin soft and warm; legs straight; could walk several miles without becoming fatigued, though still rather clumsy in movement; intellectually and in size considerably behind children of his age.

The results so far are sufficient to evidence that the patient will recover and assume the natural condition of an ordinary child. Doctor Vinke calls attention to the fact that cretins bear thyroid particularly well, and symptoms of thyroidism do not occur nearly so frequently as in those who suffer from acquired or surgical myxœdema; also the rapid loss of weight following the exhibition of this medicament in a large number of cases of obesity, seems to indicate that a lack of normal thyroid secretion is a prominent factor in the production of adipose.



FIG. 5.—After five months' treatment.

mal. Never had convulsions nor suffered from hæmorrhage from mucous membrane; no fatty tumor in the supra-clavicular region; no evidence of the thyroid gland.

The patient was placed upon extract of thyroids (Parke, Davis & Co.'s), and at the very outset began to improve; there was a decided change at the end of the first week. Loss of weight was most marked during the first forty days of treatment, and at the end of two months he had lost twenty-two pounds and gained over an inch in height. Face and lips were much thinner; legs straight; stature more erect; entire body thinner; skin soft,

A NEW ANÆSTHETIC AND PARALYZANT.

Rosendahl, of Upsala, Sweden, describes, under the name of *Septrionaline*, a new anæsthetic and paralyzant derived from *Aconitum lycoctonum*, which he believes will be of material value not only in surgical procedures, but also in the physiological laboratory, where it may effectually replace curare.

Septrionaline is a white or slightly yellowish powder, of bitter taste, producing after a brief period an anæsthetic effect upon the tongue. Given by the mouth, no general poisonous effects are induced, but when administered subcutaneously or intravenously it

provokes increased salivation and perhaps also nausea. It paralyzes first the sensory nerve-endings, followed later oftentimes by a short period of motor irritability, the latter in turn succeeded by paralysis of the muscles.

All lower animals are by it first made anæsthetic, then quite paralyzed and motionless; if the dose is very large, the muscles of respiration also become affected and breathing ceases, though the heart still continues to work. If artificial respiration is employed, the creature may be kept alive until the poison is eliminated, when of course it recovers. In case of severe poisoning, the heart muscles do not seem to be very much affected.

From the foregoing it would appear that seprionaline might be found of particular value in replacing curare in vivisection. It would appear to be preferable in that the dosage is fixed, and also that it induces anæsthesia. Rosendahl declares that strychnine tetanus yields immediately to injections of seprionaline; also that the "Aconite of the North," from which it is derived, yields two other alkaloids, both strong convulsive poisons and antagonistic to the first named. The toxic dose appears to be between seven and ten milligrammes per kilogram of body-weight. As regards the human subject, there has not been sufficient experiment to definitely fix or regulate the dose.

THE X RAYS AND HYSTERICAL PHENOMENA.

A rather far-fetched theory appears in a recent issue of *La Riforma Medica* by Doctor Ottolenghi, who suggests that the supposed power of seeing through opaque media which accrues to certain hysterical, somnambulistic, or trance subjects, may have some objective basis in the light of the recent discoveries of Roentgen. He supposes that in the more or less extra-normal conditions of the nervous system obtaining in these classes the retina may be sensitive to the X rays, which under ordinary conditions fail to produce any impression.

Those who have occasion to investigate the phenomena of trance reading, mind-reading, etc., speedily discover that the "seer" at the time of the experiments is suffering

from brain anæmia, either pathologically or artificially induced. Mental disease is a prominent factor in all spiritualistic, mediumistic and magnetic phenomena.

EXPERT TESTIMONY.

Recently a man in New York died of tuberculosis, eight months after having been struck by a cable car, which inflicted an injury to his knee. In a suit instituted by the widow for damages, expert testimony was introduced to show that the knee became diseased in consequence of the accident, and that the base of operations thereby afforded allowed the bacilli to attack the system and establish their throne in the lungs. Though the defense produced a witness who testified there could be no connection between the injury and the death, the jury returned a verdict of \$6500 for the plaintiff.

Almost a precisely parallel suit recently occurred in the city of Detroit, whereby a woman obtained damages from the municipality on the strength of testimony that her consumption was the result of a miscarriage induced by a fall upon a defective sidewalk. Strange to say, there was no difficulty in obtaining expert testimony to uphold the pleas made by the attorneys for the plaintiff, and even an expert witness for the defense was so twisted about that his testimony was affirmative rather than negative.

INFANTILE SCURVY FROM STERILIZED MILK.

Doctor Louis Starr says that within eighteen months he has seen five cases of scurvy in infants, all under five years of age, induced by sterilized cow's milk. He is not the only gentleman who has observed the same. It is evident that the germ theory at best has its limits, and the sooner the medical profession discovers for itself what these limits are, the better it will be for both doctor and patient.

NOTABLE DECISIONS.

The Supreme Courts of Arkansas and Alabama have recently handed down decision concerning the validity of a contract not to practice medicine. In the former the justice

stated that the only point involved was whether a contract of this character was void on the ground of public policy, as to being in restraint of trade—which he decided in the negative. The Court of Alabama held practically the same; also that it is not essential that the physician have his certificate of qualification recorded a second time in the same State, even should he move to a different county; also that it is not necessary a physician shall show he is actually practicing before he can contract for the property and good-will of another, or that he had at the time complied with the legal requirements for practicing medicine in a given place.

EDITORIAL NOTES.

Filters.—

A good filter can do a great deal toward improving an impure water, but against infection most of such afford little safety, as Doctor Sims Woodhead and Cartwright Wood have lately taught us. A good filter will remove lead or iron; it will render a turbid water pure, aerate it, and bring about oxidation of some or all the organic matter in solution; it will obviate the risk of swallowing parasites or their ova in drinking-water. Where a supply open to such drawbacks has to be used for household purposes, household filters are very valuable; but even they, as well as all the larger filtering plants for purifying a supply of water to a large population, are leaky as regards enteric fever and cholera.

Regarding pathogenic microbes, it is certain that they pass through the best filters after a very brief period; also that others remain in the filter, where they may be fruitful and multiply, thus actually increasing the danger instead of removing it.

Mortality of Infancy and Childhood.—

The quality of food plays an important part in the ailments of the young, and even in zymotic diseases the abnormal death-rate is largely due to overfeeding, either prior to or during the disease. The malady may be severe or not, according to the degree of fermentation in the contents of the alimentary tract. If an infant cannot digest its food, it

is more than probable it is overfed, since the nourishment ingested acts as so much foreign matter; naturally fermentative decomposition takes place with the mal-products of nutrition.

It is unmistakable that in a great number of cases with children the digestive organs have been so overtaxed and abused that a state of inanition results, by which the secretions are rendered sluggish and are slow to respond even to the most common remedial measures.

Medical Department of United States Navy.—

The minimum number of physicians allowed is 175. There are, however, at the present time, of all ranks, but 161, and very few if any applications. One would suppose the U. S. Navy would be more attractive to medical men than the Army service, but such is not true, owing to the fact that staff officers are excluded from many of the privileges of their rank—privileges which accrue to all officers of the line.

Pass It Along.—

A bill is before the New York Senate that other States might copy with benefit. The bill makes it a misdemeanor to sell adulterated or drugged cigarettes, also to sell or give cigarettes to any one under sixteen years of age. In connection with the bill is a law requiring vendors of cigarettes to take out licenses.

Ontario Medical Association.—

This organization will meet in Windsor (opposite Detroit) on June 3d and 4th. The leading topics for discussion will be: "The Operative Treatment of Mammary Carcinoma;" "The Treatment of Phthisis;" "Treatment of Puerperal Sepsis." It is expected some six hundred physicians will be present.

A Good Suggestion.—

It has been requested of Congress to make an appropriation for a revised edition of the Medical and Surgical History of the War of the Rebellion. Every medical man will heartily endorse this.

Tea Cigarettes.—

These are said to be quite the fashion now as an after-dinner luxury in England.

Items and News.

Comparative Illegitimacy.—

Paul Bourget, in a book on America, twitted the citizens of this great country with a desire to look up their grandfathers when they had leisure, whereupon Mark Twain pungently replied that the French when they have leisure spend it in hunting up their fathers. Bourget then tries to prove the ratio of illegitimacy is greater in America than in France, whereupon the *Medical Record* takes up the cudgels and proves the reverse to be the fact. The *Record* concludes with the following:

"The most striking phenomenon, after all, about the Parisian, is not that he cannot find his father (twenty-eight per cent. have none), but that he succeeds in getting along at all, for in this wonderful city, out of every one hundred families, 32.03 have no children, unless they are still-births. Out of 60,000 children born in Paris, 20,000 are sent into the country to nurse, of which twenty-eight per cent. die the first year. Consequently, if a Parisian is lucky enough to get fathered, and then to find his father, he isn't out of his trouble, for he has hardly an even chance of growing up."—*Clinical Sketches*.

Tablet Insolubility.—

That the compressed tablet is not the best method of exhibiting insoluble remedies was demonstrated very forcibly recently in the north of England. An operation for obstruction of the bowels showed that the trouble arose from undissolved tablets which had been prescribed by the attending physician. There is no doubt that a careful examination would show that in many cases tablets pass through the body without disintegrating. If the substance is difficult of solution in its powdered form, it certainly is more so in its compressed form.

There is considerable demand for remedies in tablet form, and if they must be dispensed it should be seen to that some readily soluble substance is added, before compression, in sufficient quantity to insure disintegration. This, with only as much pressure used as is absolutely necessary, will do much to overcome the objection.—*Western Druggist*.

Medical Practice in France.—

A Paris correspondent of the *British Medical Journal* declares that at least 2500 physicians in France are battling with starvation, and adds the physicians themselves are largely responsible for this state of affairs. "They

have taught lady patronesses of the different societies to diagnose diseases, to dress and bandage wounds, to vaccinate their own children and those of their neighbors. Medical science is vulgarized in every way. Doctors write to metropolitan daily papers explaining how bronchitis and cramps of the stomach are to be cured, and in fashion journals teach how to cure pimples and avert headaches. Five hundred thousand gratuitous consultations are given yearly in Paris dispensaries, and in this way a large amount of fees is diverted from the medical profession."

Medical Men to Avoid.—

The one who has acute exacerbations of insanity when exposed to any new fad. The one who is always successful with all his difficult operations. The one who always sees hundreds of cases of a rare disease. The one who can always match your case and improve on your treatment. The one who always finds you have omitted something in the examination of your case. The one who thinks he can talk well and is always ready to discuss any paper of the evening. The one who is always the first to do the new operation. The one who is in a chronic fear of being anticipated in his important discoveries. The one who in consultation feels it is his conscientious duty to explain to the patient why he differs with the attending physician.—*Canada Lancet*.

Designed by a Blind Architect.—

The Perkins Institution for the Blind at South Boston is to have a new dormitory, and the wonderful part of it is that the plans have been drawn by one of the blind attachés of the institution, Dennis A. Reardon. It is said to be the first case in the world where a blind man has drawn the plans for a public institution. Mr. Reardon has been totally blind since boyhood, is now sixty-five years old, and lives in his own house, which he himself designed, in South Boston.—*Boston Globe*.

Inebriety and Insanity.—

The large part played by alcohol as a cause contributing to insanity receives fresh confirmation in the fortieth report of the British Commissioners in Lunacy. For the five years ending 1893 alcoholism was the predisposing or exciting cause in 20.8 per cent. of male and 8.1 per cent. of female lunacy. Intemperance is credited with 25.1 per cent. of male and 19.9 per cent. of female general paralysis.—*American Journal of Insanity*.

An Important Discovery.—

"My wife," he remarked, "has made a very important discovery."

"Indeed! What is it?"

"A new substance that is apparently indestructible."

I recalled the fact that his wife had been a professor of natural sciences prior to her marriage, and inquired if she had been long at work upon the invention.

"No," he replied, "it came about quite by accident. She was trying to make a sponge cake."—*Lippincott's Magazine*.

Hollow Crystals.—

In the *American Journal of Pharmacy* Mr. L. F. Kebler describes hollow tubular crystals of monobromated camphor which were obtained from a benzin solution. Such a form of crystallization is almost unknown, the interior of the crystals being filled with the mother liquor. Professor Pettee, in charge of mineralogy at the University of Michigan, to whom some of the crystals were sent, stated that the specimens were without parallel.

Cannot be Too Careful.—

A doctor cannot be too careful. I once knew a young surgeon to operate for appendicitis on a large, roomy man, and had it not been for a timely autopsy he would not have known to this day that a good twenty-cent cigar dropped out of his pocket during the operation and was sewed up in the patient's annex. Had it not been for the post-mortem, the cigar would have been a dead loss.—BILL NYE.

Albuminuria from Vaccination.—

Peiper and Schnaasche observed traces of albumen in 5.73 per cent. of cases of vaccination. It was somewhat more frequent in revaccination—ten times in fifty-four cases. There appears to be no connection between the occurrence of albuminuria and the number of pocks; it does not appear probable that elevation of the temperature possesses any influence.—*Wiener Klinische Rundschau*.

Infant Feeding.—

In France it is forbidden, under severe penalties, to give infants under one year of age any form of solid food, unless such is ordered by prescription, signed by a legally qualified medical man. Nurses are also forbidden to use, in the rearing of infants confided to their care, any nursing-bottle provided with a rubber tube.—*Charlotte Medical Journal*.

Infected Heirlooms.—

An English bacteriologist has had the audacity to examine some beautiful old tapestries that have hung for generations upon the walls of a country mansion, and found them teeming with tubercle bacilli. What a blow this sort of thing would be to the possessors of old family relics if its force could be fully felt!—*American Medico-Surgical Bulletin*.

Organic Extracts.—

Doctor Frederick Coggeshall, in a paper read before the Suffolk District Medical Society, declared the so-called "organic extracts"—cerebrine, ovarine, cardine, testine, etc.—are physiologically and therapeutically worthless.—*Boston Medical and Surgical Journal*.

A Professional Companion.—

Young Doctor (on his honeymoon): "Just observe, wifey dear, the curious tints of the sky. That cloud poised on the mountain crest over yonder is exactly the color of a diseased liver."—*Tit-Bits*.

Anti-vivisection.—

A bill to prohibit vivisection is before the New York Assembly. One of its advocates asserted that "Jack the Ripper" was an example of the modern vivisectionist.—*Medical Record*.

Liquidambar.—

Professor Möller makes the startling announcement that authentic specimens of liquidambar, or sweet gum, are no longer found in the market.

Doctor James F. Noyes.—

This noted ophthalmologist, formerly a resident of Detroit, but latterly of Providence, R. I., died recently at the age of seventy-eight years.

Time Required for Digestion.—

The approximate time required by the human stomach for a mixed meal of bread, fruit, and vegetables, is three and a half hours.

A Royal Medical Student.—

Her Majesty of Portugal has just finished her second year's course in the University of Lisbon.

Eminently Proper.—

The well trained nurse seems to be coming to the front.—*Exchange*.

Book Reviews.

THE KING IN YELLOW. By Robert W. Chambers. Cloth; 32mo; pp. 295. Price, 75 cents. F. Tennyson Neeley, Chicago.

This most remarkable work is now in its third edition, which speaks well for its popularity. Mr. Chambers is an author of genius without an equal in his field, and this particular volume is regarded as one of the most remarkable of any era, and is comparable only to some of the writings of Edgar A. Poe. It is made up of a series of chapters, all of which refer to the title, *The King in Yellow*. The initial chapter is a most excellent disquisition upon certain phases of insanity, notably the mania of aggrandizement. There is a great deal, of course, that appears marvellous and impossible, nevertheless the descriptions are powerful, and there is a peculiar fascination which holds the constant attention of the reader. Indeed, the *King in Yellow* is a very interesting contribution to the present fund of materio-mysticism, being strong, dramatic, full of color, weird, uncanny, picturesque, and yet an exquisite gem of pen coloring.

SYPHILIS IN ANCIENT AND PREHISTORIC TIMES. By Doctor F. Buret. Two volumes; cloth; 16mo; pp. 226 and 300. Price, \$1.50 per volume. The F. A. Davis Co., Philadelphia.

This work has been translated by Doctor A. H. Ohmann-Dumesnil, and it is a remarkable contribution to the classic literature of medicine. The probable existence of syphilis among the ancients is very thoroughly considered, and extended evidence is cited to show the disease is not of comparatively recent origin, but probably as old as civilization. The first volume deals with syphilis among the Chinese, Japanese, Egyptians, Assyrians, Babylonians, Hebrews, Hindus, etc., a thousand years before the Christian era; also with syphilis among the Greeks and Romans just before and after the beginning of this era. The second volume—which constitutes two volumes in one—presents the main part of the argument, and is worthy the attention of every medical man, especially of him who is interested in the archæology of his profession.

MEMOIRS OF AN ARTIST. By Charles François Gounod. Cloth; 24mo; pp. 222. Price, \$1.25. Rand, McNally & Co., Chicago.

Gounod's posthumous memoirs cannot fail to be of wide and permanent value, and give a high idea of the writer's nobility and single-heartedness. They further offer all unconsciously a charming picture of love and confidence so often seen existing between a French mother and her sons.

One has been accustomed to think of Gounod solely as a musician, but on reading this volume it is quickly learned that he was as well a literary genius ranking at least equal if not superior to that other great musical writer, Berlioz. If for nothing

more, the volume is valuable for the comments on the compositions of Mozart and Mendelssohn. We heartily commend this work to the attention of all music-lovers.

THE PRINCIPLES OF BACTERIOLOGY. By A. C. Abbott, M.D. Cloth; 12mo; pp. 492. Price, \$2.50. Lea Brothers & Co., Philadelphia.

The demand for this volume has been such that the publishers have been constrained to issue a third edition, which is enlarged and thoroughly revised, and moreover presents over one hundred illustrations, a large number of which are colored. The volume is especially intended for the needs of the student and practitioner, and furnishes the information necessary for the equipment of a simple laboratory and for the cultivation and identification of micro-organisms. It has, moreover, been brought well up to date.

TOMMY ATKINS OF THE RANCHUNDERS. By Robert Blatchford. Cloth; 12mo; pp. 284. Price, \$1.25. Edward Arnold, New York.

This most charming little volume has a love tale which perhaps is somewhat prosaic, but as a representation of life in the ranks and among the non-commissioned officers of the British Army it is decidedly a success. From his familiarity with his topic one can believe that the author writes from practical experience—but whether or no, the book is one of the most interesting that has come to our table in a long time, and will prove equally agreeable to youth or adult.

SIXTEENTH ANNUAL REPORT OF THE GEOLOGICAL SURVEY. Cloth; quarto; pp. 646. Government Press, Washington.

This is Volume III of the *Mineral Resources of the United States*, and is a very complete *résumé* of the status and production of iron, steel, copper, lead, zinc, manganese, tin, gold, aluminum, nickel, quicksilver, chromium, platinum, antimony, tungsten, and bauxite ores, not alone in America, but abroad. As a work of reference it is invaluable to the geologist and metallurgist.

MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By Henry C. Chapman. Cloth; 12mo; pp. 254. Price, \$1.50. W. B. Saunders, Philadelphia.

The first edition of this work has already been reviewed in these columns. The new and second edition is the same in text and scope as the former except for a brief reference bibliography.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York and London.

The April issue opens with a most delightful paper on "The Sport of Yacht Cruising," by Sir George Baden-Powell, K.C.M.G., M.P. Equally

interesting is "Some Poachers," by Alex. Innes Shand. "Otter Hunting with the H. O. H." is by Hugh L. Heber Percy; "A Bunch of Grapes," a serio-comic account of a stalk in the Highlands of Scotland, is by Lady Middleton; "Gentlemen Riders," by the Earl of Suffolk and Berkshire; "A Cycle in Jutland," by C. Edwardes; "The Joys of a Boat Race—Before, During and After," by C. M. Pitma. "The Foot Ball Season" is discussed by C. S. Coleman. Hedley Peek gives the fifth installment of his most interesting archæological researches regarding "Old Sporting Prints." "Favorite Meets" and "Notes by Rapier" are by the editor, the latter incidentally discussing the wisdom and cunning of the fox. The illustrations, eighty in number, six of which are full-page, one and all are *chef d'œuvres* of art, and, as heretofore, of a character rarely equaled by any magazine. They exhibit the work of E. Caldwell, A. Thorburn, Lancelot Speed, F. S. Wilson, G. H. Jalland, E. M. J. Edwardes, F. Dadd, E. Kinnison, and N. J. Gibb.

LITTELL'S LIVING AGE. Price, 15 cents; \$6.00 per year. Littell & Co., Boston.

There is always an endless surprise of good things in this journal. Papers of more than ordinary value are: "Recent Science," by Prince Kraptokin," which deals both with Roentgen's Rays and the Erect Ape-man; "In the Land of the Northernmost Eskimo," by Eivind Astrup; "Chevalier d'Eon as a Book Collector," by W. Roberts; "South Africa and the Chartered Company," by Charles Harrison; "In Praise of the Boers," by H. A. Bryden; "National Biography," by Leslie Stephen; "Baltic Canal," by W. H. Wheeler; "Spenser, and England as He Viewed It," by Geo. Serrell; "Cardinal Manning and the Catholic Revival" and "Personal Reminiscences of Cardinal Manning," respectively by A. M. Fairbairn and Aubrey de Vere; "The Rival Leaders of the Czechs," by Edith Sellers.

The foregoing list gives but a trifling idea of the great field covered by the *Living Age*. Each week's issue brings just such valuable scientific, biographical and historical sketches and reviews, to say nothing of the choice fiction and poetry which are equally features of this publication.

SUN AND SHADE. Price, 50 cents; \$5.00 per year. The New York Photogravure Co., New York.

The March issue is particularly delightful. The initial plate is an oil *fac simile* of "Christ Before Pilate" from the painting by Munkacsy; then follows "Sunshine," a photogravure representing a little maiden looking longingly out upon the garden—a copy of a painting by Alma Tadema. A photogravure representation of the "City Hall Park of New York," taken March 2d of the present year, shows the trees covered with snow, and the camera has approached what has hitherto been considered a practically impossible feat. "Pleasant News" and "Virginia Beach" are two more very handsome photogravures, one in umber, the other in sea-green. "Springtime" is a photogravure from a water-color by Virginie Breton; "The Marriage of Pocahontas," also a photogravure, is a copy of the well known painting by Henry Brueckner; "Susanna and the Elders" is a portrait upon a fan in the collection of the Metropolitan Museum of Art, herein reproduced. *Sun and Shade*, always superb, almost surpasses itself in this number.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

In the issue for May appears: "The Crowning of a Czar," by Mary G. Thornton; "The Lost Children of the City," by Edith M. Thomas; "Sir George Tressady" (vii), by Mrs. Humphry Ward; "Impressions of South Africa," by James Bryce; "Life of Napoleon Bonaparte" (continued), by William M. Sloane; "Mas' Craffud's Freedom," by H. S. Edwards; "The Harshaw Bride," by Mary H. Foote; "The Goose Feather," by C. A. Collmann; "Cinderella up to Date," by Elizabeth Pullen; "A Winter Twilight in Provence," by R. W. Gilder; "The Election of a Pope," by W. R. Thayer; "The Alaska Boundary Question," by E. R. Scidmore; "Are Nervous Diseases Increasing?" by P. C. Knapp.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. Cosmopolitan Publishing Co., Irvington-on-the Hudson, N. Y.

The May issue is particularly handsome. It opens with a paper on "Seville, the Fair," by H. C. Chatfield-Taylor; "Some Types of Artists' Models" is by Katharine Pyle; "Art in Photography and Photographic Models," by A. Van B. Berg; "Hilda Strafford," by Beatrice Harraden; "Mrs. Cliff's Yacht," by Frank R. Stockton; "Physical Training at the Universities," by W. G. Anderson; "The Dangers of High Buildings," by Ernest Flag; "The Phoenix Park Tragedy," by Tighe Hopkins; "Convicts and Bushrangers in Australia," by Thomas W. Knox. As usual, *The Cosmopolitan* holds its own with more expensive magazines in spite of its reduced price.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

Isabel Strong writes of "Vailima Table Talk"—Robert Louis Stevenson in his home life; "Sentimental Tommy," by J. M. Barrie, is continued; "Old Marblehead" is by Marguerite Merington; "The Evolution of the Trotting Horse" is by Hamilton Busbey; "Chloe, Chloris, and Cytherea," by Gertrude Hall; "Women Bachelors in London," by Mary G. Humphreys; "Rather Too Much Energy," by J. W. Roosevelt; "A Mystery of the Sea," by W. J. Henderson; "The Comedies of a Consulate," by B. H. Ridgely; "The Nightmare Page," by Octave Thanet. There are the usual departments.

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

The May number contains: "Betty the Bound Girl" (poem), by Ethel Parton; "His Father's Price," by John Bennett; "The Porcupine," by John Burroughs; "The Song of the Skipping Rope" (verse), by Anna B. Patten; "The Prize Cup" (concluded), by J. T. Trowbridge; "The Green Satin Gown," by Laura E. Richards; "Shooting Stars that Reach the Earth," by O. C. Farrington; "The Children of Chinatown," by Theodore Wores; "Sindbad, Smith & Co." (ix-x), by Albert Stearns; "The Swordmaker's Son" (xiv-xvi), by W. O. Stoddard; "Spring House-cleaning," by Margaret Johnson; "The Red Bird's Matins," by H. H. Bennett; "Some War Courtesies," by H. A. Ogden.

McCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. S. S. McClure, New York.

In the May issue Will H. Low writes of "A Century of Painting," giving reminiscences of Jean François Millet; Elizabeth Stuart Phelps gives us another one of the interesting chapters from her life; J. T. McKay writes of "A Leap in the Dark;" I. M. Tarbell and Anthony Hope give us new chapters of their respective papers on the "Life of Abraham Lincoln" and "Phroso;" G. P. Serviss writes of "Climbing Mont Blanc in a Blizzard;" "Fairy Gold" is by Mary S. Cutting; Doctor W. W. Keen writes of "Roentgen's X Rays in Surgery," and Cy Warman of "Catching a Runaway Engine."

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston.

The chief papers in the May number are: "Letters of D. G. Rossetti (1854)," by G. B. Hill; "Pilgrim Station," by Mary H. Foote; "A Trip to Kyoto," by Lafcadio Hearn; "Val d'Arno," by C. J. Bayne; "Pandean Pastimes," by Fanny D. Bergen; "The Old Things" (v-vi), by Henry James; "Daphne Laureia," by J. P. Peabody; "The Preservation of Game and Fish," by Gaston Fay; "Some Memories of Hawthorne" (iv), by Rose Hawthorne Lathrop; "The Scandinavian Contingent," by K. C. Babcock; "Whimsical Ways in Bird Land," by Olive Thorne Miller.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Company, New York.

The May number opens with "The Engineer in Naval Warfare," by George W. Melville, W. S. Aldrich, Ira N. Hollis, Gardiner C. Sims, and George Uhler. Camille Flammarion contributes a paper on "Mars and its Inhabitants;" "Men who Might Have Been Presidents" is by Joseph M. Rogers; "The Old Testament Not a Millstone" is the theme of an essay by Reverend George C. Workman; "Wild Traits in Tame Animals" is by Doctor Louis Robinson; "Microscopical Study of Living Matter," by Charles Sedgwick Minot.

THE YOUTH'S COMPANION. Price, 5 cents; \$1.75 per year. Perry Mason & Co., Boston.

In the beautiful Easter number, Felix L. Oswald gives a prophetic account of the cities of the future, which would make this issue well worth reading even if it contained nothing else. Doctor Oswald has simply taken the tendencies of the population of this country, and by logical processes draws a picture of a future metropolis—a picture as reasonable and possible as it is interesting and remarkable. This is not the only attraction of the Easter number, however: there are two stories suitable to the season, besides the full allowance of adventure, travel, and delightful miscellany.

APPLETONS' POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

The opening article of the number is by J. W. Spencer, entitled "Niagara as a Time-piece;" "Development of the Monetary Problem" is by Logan R. G. McPherson; "Principles of Taxation"

(iv), by D. A. Wells; "The Pygmy in the United States," by J. Weir, Jr., M.D.; "Pending Problems for Wage-earners," by A. E. Outerbridge, Jr.; "Physiology of Color in Plants," by D. T. MacDougal; "Natural Science in a Literary Education," by A. H. Tolman.

OUTING. Price, 25 cents; \$3.00 per year. Outing Co., New York

The May issue opens with "The Search for Mrs. Denbeigh," by Agnes L. Provost; "Llano Estacado" is by J. F. Duncan; "The Truth of a Trout-ing," by E. W. Sandys; "Canoeing on the St. John," by Reverend W. C. Gaynor; "Handicap Reform in Lawn Tennis," by J. P. Paret. Other notable papers are: "Camp Cookery;" "Bass Fishing;" "Racing Sandbaggers;" "Yachting on 'Frisco Bay.'" The number is strong throughout, and carries many fine illustrations.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the May number is "Seeking Both Ends of the Globe," by Rufus R. Wilson. The troubles of the ruling house of Italy give timeliness to an article on "Queen Margherita." "A Belligerent Cuban" is by G. E. Walsh. Mrs. Clara Foltz tells her experience in "Talks by Successful Women." Two other papers are "The Fair Women of Austria" and "Masterpieces of German Sculpture." Beaumont Fletcher compares Bernhardt, Duse, and Nethersole in "Camille."

THE REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The notable articles in the May issue are "Sixty Great Occasions of 1896;" "M. de Blowitz, Journalist," by W. T. Stead; "The Author of Tom Brown"—a sketch of the late Thomas Hughes, by Charles D. Lanier; "Vacation Camps and Boys' Republics," by Albert Shaw. There are the usual "Progress of the World," "Leading Articles of the Month," "Current History in Caricature," etc.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 25 cents; \$2.00 per year. The Monthly Illustrator Publishing Co., New York.

The more attractive papers in the May issue are: "Story of a Child," by Arabella Ward, and "A Danger Run," from the French of Ernest Daudet. Among the other contributors to this number are Horatio C. King, Edgar M. Ward, Edward Hildane, Henry E. Miller, William S. Miller, and Gilbert Crammer. The illustrations, as usual, are superb.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for May 2d contains: "Material Men and Architects;" "Value of Architectural Services;" Editorial "Notes and Comments;" "Failure of Buildings;" "Statues and Monuments of New York;" "Dead Cities of the Fayum;" "Improvement of Tenement Houses;" "In Streets and Pavers;" "Correspondence;" "Societies;" "Personal;" "New Departure;" "Industrial Progress."

Therapeutic Brevities.

To Reduce Enlarged Tonsils.—The ætiology of acute and chronic tonsillitis seems settled in the minds of all pathologists, but my experience points to a cause entirely overlooked, viz.: super-acidity of the primæ viæ—the catarrhal accidents being merely exciters. I think that in every case of acute or chronic inflammation of these glands the salivary secretions will be found acid instead of alkaline, and that free doses of potassium or soda locally applied and ingested will give most rapid relief. The anatomy of the tonsil is well understood, but the great variation in the size and number of excretory ducts has not been particularly pointed out. These ducts are greatly enlarged in either acute or chronic hypertrophy of the glandular structure, unless contracted by astringent or caustic applications. Since the general disuse of astringent gargles, suppurative cases are rarely seen. Cauterization, once the general practice, is now almost abandoned, for the reason that it is obstructive and converts the acute into the chronic condition. An efficient cauterant, antiseptic and alterant is pure hydrochloric acid, which is always friendly to human flesh. Take a capillary glass tube, one-eighth of an inch calibre, draw to a point with a calibre one sixty-fourth of an inch, and fire-polish, the shaft of the drawn part being two inches long. If the shaft of the tube is five inches long, the drawn part will hold one minim; if the larger shaft is increased in length, it will hold more. When the point of this tube touches any substance, it will deposit a fraction of the drop, and by long contact it will deposit all it contains. I dip these tubes into pure fuming hydrochloric acid and push them into the excretory ducts of the tonsils, three in each gland at each sitting, twice a week. This operation is painless and produces no inflammation or swelling. Five or six applications are sufficient for moderately enlarged glands.—DOCTOR H. W. KENDALL.

Amyl Nitrite in Pneumonia.—It is generally understood that amyl nitrite should be used with great caution, four or six minims being a large dose, whereas experience shows a much larger quantity may safely be used. For a single inhalation I give sixty, eighty, or even one hundred minims. These are administered, fifteen minims at a time, on a compress held two or three centimeters from the patient's mouth, the whole inhalation lasting from three to five minutes. In ordi-

nary cases one inhalation a day suffices; in severe cases two, given morning and evening, are better. No accident ascribable to this treatment has followed. The inhalations are continued throughout the illness and for one or two days after the crisis has occurred. The drug does not seem to influence the duration of the disease or the temperature, the effect produced being purely local, consisting of a diminution, more or less marked, in the dyspnoea, a modification of the sputum, which becomes less viscid, and a diminution of the stethoscopic sounds. Its action seems to be exercised entirely on the pulmonary circulation, which is probably subject to a sudden flushing with blood, analogous to that occurring in the skin, which hastens the return of the blood by the pulmonary channels and promotes the absorption of the exudation. In eighteen months, seventy-seven patients were treated in this way, the deaths numbering sixteen; and a large number of these were bad subjects, being drinkers or confirmed drunkards. Neurotic subjects bear the treatment badly, owing to the fears they entertain. It is highly important that during the inhalation the patient should be in the recumbent position.—HAYEM, in *La Semaine Médicale*.

Quinine in Tablets.—The editor of *The Practitioner* (London) advises that quinine be taken in effervescent solution. He seems to have had a better experience with pills than with tablets. It will frequently be found that quinine in a liquid effervescent form will agree well with the stomach. As a prophylactic remedy, basic quinine hydrochlorate is less irritating than the sulphate, and more pleasant to take on account of the absence of the extremely bitter taste characteristic of the latter. The dose can be carefully regulated, and it contains a proportionately larger quantity of quinine than the sulphate. It is easily transported, and keeps perfectly. Quinine hydrobromate ought to be employed for the treatment of obstinate fevers when the hydrochlorate has failed to produce the desired effect.

Quinine salts should not be put up in the form of tablets, as repeated examinations of samples from various sources have proved that they are either too brittle or completely insoluble. Investigation has shown that after two hours tablets are often entirely unaffected by the gastric juice. Better results are obtained with gelatin capsules and medicinal pearls, which readily dissolve in the stomach. The advantage of these preparations is the ease of controlling their composi-

tion, and their small size. Pills, contrary to the prevailing opinion, give most prompt and invariable results, even silver-coated pills that have been kept upwards of a year. Pills or pearls, containing fifteen centigrammes of quinine hydrochlorate, may be administered for prophylactic purposes—two daily, in a little water.—*Medical Standard*.

Administration of Ergot.—When satisfied that the uterus is empty, ergot should be administered, in the dose of one drachm, by the mouth. Under the pressure of our high civilization, nervous strain is exaggerated during pregnancy and intensified during labor; the result is that the contractility and retractility of the uterus stand in need of reinforcement, as it were, and this may be secured through the administration of ergot. The drug cannot do harm, and extended experience would seem to prove that its administration, after the completion of the third stage of labor and during the first few days of the puerperal period, assists in maintaining due contraction and thereby hastening involution. This, however, is the only time when ergot should be given; during labor it has no place. There are far safer means of accelerating deficient contraction.

The distinctive property of the drug should ever be borne in mind. If administered during labor, it may lead to tetanic spasm of the uterus, whereby the life of the fœtus is imperiled, and whereby also, should operative interference become necessary, this is nullified or rendered dangerous, owing to the spasm which has been evoked. Further, ergot administered during labor may affect chiefly the lower uterine segment, and the fœtus thus become incarcerated, or, the upper segment remaining relaxed, hæmorrhage may ensue, which will kill the child and excessively endanger the woman.—GRANDIN and JARMAN.

Carbuncle.—Twenty years ago Sir James Paget stated that "cases uncut heal more readily than those cut;" and further, that "carbuncles, if not divided, frequently suppurate only about their centres and slough only in their central parts, and the borders clear up by the softening and dispersion of the inflammatory product in them. In some cases they completely abort." It is my belief that, if seen before the softening takes place, resolution can generally be effected by pressure combined with the application of iodine, and that in any case this plan of treatment gives the best results. Iodine is,

of course, a very old remedy, and has, I fancy, fallen into disrepute through an error in its mode of application. The weak tincture has been used instead of the strong liniment. It has possibly been somewhat the same with regard to pressure, for we are told in Holmes's "Surgery" that "the treatment by pressure (with plaster), as Doctor O'Ferrall prescribed, has fallen into disuse." It is doubtless in very many cases difficult to apply pressure effectively, but when the carbuncle occurs on a limb I can confidently recommend the following treatment: Paint the carbuncle and the skin immediately surrounding it freely with iodine liniment, and over this place a thick pad firmly secured by an elastic bandage. The immediate relief this gives is very marked, and the patient is able to go about his business as usual.—DOCTOR MABERLY, in *British Medical Journal*.

The Ear during Exanthemata.—Of 404 cases of otitis media suppurativa in children, the cause in about sixty per cent. was measles, scarlet fever, whooping-cough, mumps, or teething.

From the very beginning of the illness, where there are any catarrhal symptoms, the patient should be directed to use the handkerchief frequently and strongly, the object being to clear the nose and naso-pharynx of muco-purulent products, and so prevent them from settling and decomposing around the Eustachian orifices, through which infection of the ears takes place. If the child cannot do this efficiently, the Politzer bag should be used. The quantity of secretion dislodged and thrown into the mouth by this means is astonishing. When there is dullness of hearing or pain in the ears, resort to inflation should never be delayed. When the pain in the ears is acute, and immediate relief not obtained from inflation, and especially if there is a sudden rise of temperature without other explanation, the tympanum should be punctured without delay. Have the head securely held, and the membrane brightly illuminated; use an arrow-shaped paracentesis knife with a shoulder; puncture the tympanic membrane in its lower and posterior part. The operation not only relieves the immediate pain, but saves the deeper structures of the ear and prevents the misery of a chronic otorrhœa with its attendant risk.—*Journal of Laryngology*.

Plugging Posterior Nares.—An unbleached linen thread is doubled from three to six times, the loops being from twenty to thirty centimeters in length; one end is left co

siderably longer, so as to extend for some distance beyond the doubled portion, which is then twisted and well waxed. In this manner a sort of lash is obtained which can readily be introduced into the nasal cavity as far as the posterior wall of the pharynx, after which it is grasped with forceps introduced through the mouth, and drawn out of the buccal cavity. The threads are then untwisted and a small pad of cotton wool attached thereto, with which the posterior nares can easily be plugged by pulling on the end of the thread protruding from the nostrils, the operation being assisted by the introduction of a finger into the mouth. It must not be forgotten to leave one of the threads, attached to the plug, hanging down into the pharynx, so as to permit of withdrawing the obstruction when it is desired to do so.—*North American Practitioner*.

Blindness from Male-fern.—Masiers reports two cases of amaurosis induced by extract of male-fern. One, a carpenter, after taking thirty-two capsules of extract of male-fern and extract of pomegranate, and also a dose of castor oil, rapidly lost consciousness, and the next day his eyes developed total mydriasis and complete amaurosis; a week afterwards atrophy of the optic nerves supervened, and the patient became entirely blind. The toxic effect of oil of male-fern has been shown to be due to filicic acid, which is soluble in castor oil and other fatty bodies, and so more readily absorbed. * Toxic symptoms are always more grave where a dose of oil has followed the ingestion of the male-fern extract.—*Journal de Médecine et de Chirurgie Pratiques*.

New Operation for Varicocele.—Remove a large elliptical portion of skin from the external and posterior surface of the affected side of the scrotum. After this flap, the extremities of which are directed upward and downward, has been dissected away, the enlarged veins are exposed and resected between ligatures. The large and gaping wound is closed by bringing the lower to the upper angle of the ellipse, and by stitching together the opposed margins of skin. This operation may be performed rapidly and without much hæmorrhage, and is in many respects superior to that in which a portion of the scrotum is removed by a transverse wound.—BRAULT, in *Lyon Médical*.

The Whine of Infants.—For many years I have relieved this unpleasant symptom or condition by the use of a few drops of infu-

sion of green coffee; when not available, the roasted berries may be employed. The dose must be small, and seldom requires repetition under two or three hours. The child at first seems stimulated, then falls into a natural sleep, when it should be placed upon its left side; after awakening it is almost certain to take nourishment and may thereafter thrive if surroundings are favorable. I keep on hand a tincture made from bruised green Mocha berries for use in nervous troubles of women, and particularly nervous feverishness of children during dentition.—DOCTOR COOMBS, in *Medical Summary*.

Tetanus.—A case of gunshot wound of the leg experienced on the sixth day slight trismus; on the tenth day very severe trismus; on the twelfth day general convulsions and tetanic twitchings. Morphine, opium and chloral had absolutely no effect; under their use the spasms increased in frequency and death was expected. On the twentieth day was begun injection of twelve minims of a solution of carbolic acid, one to 50, every three hours. Improvement was manifest in forty-eight hours; and thirteen days later the patient was discharged well. Altogether twenty-eight injections of carbolic acid were given.—ÖSCHEROWSKI.

Seborrhæic Vaginitis.—Under the name of vaginal seborrhœa, Strassmann describes a peculiar form of catarrh of the vagina, which is frequently met with in stout women, old maids, and during pregnancy. This may be considered as simply due to exaggeration of the normal secretion of the vagina, and is characterized by slight discharge consisting mainly of whitish, fatty clots, in which are found agglomerations of pavement epithelium. Relief is rapidly obtained by means of injections of warm water to which a little sodium bicarbonate has been added.—*Practitioner*.

A Gynæcological Hint.—So many patients suffer from apparent pelvic symptoms, due in reality to intestinal conditions, that a routine rule of practice is, first of all, *free purgation*. It is a matter of almost daily experience that patients return in the course of a few days stating either that they are well or that they are much improved.

As a matter of fact, a goodly proportion of women suffering from pelvic discomforts can be so relieved. Of course, the treatment proves their trouble to have been of a non-gynæcologic character.—BALDY.

Quinine in Corneal Ulceration.—One of the most noted London ophthalmic surgeons recommends most strongly—entirely supplanting iodoform in the local treatment of corneal ulceration during diphtheritic conjunctivitis and severe ophthalmia—a lotion composed of three to four grains of quinine to the ounce of water; the salt is dissolved in the smallest amount of acid, the water being subsequently added. During the bad form of the disease he employs as “eye-drops” and applies compresses saturated with the same to the lids.—*Medical Review.*

Baths in Cerebro-spinal Meningitis.—Worochilsky experimented in two cases in order to determine the influence of baths at 90° F. In both, the baths were commenced six or eight days after the beginning of the attack, and were kept up ten minutes each time. They strengthened the heart's action, lowered the pulse, diminished the cerebral pains as well as those of the spine, caused the disappearance of albumen from the urine, and in a few days brought down the temperature from 104° to 98.6°.—*Wiener Klinische Wochenschrift.*

Osteomalacia.—Guillaume Rossier mentions as a remedy, phosphorus in doses of $\frac{1}{4}$ to $\frac{1}{8}$ grain; but if this does not result in benefit, castration is to be considered. The brilliant results which have been obtained by the use of marrow in certain blood diseases suggest, from the standpoint of the changes in the blood and in bones in this disease, that here also benefit could be obtained.—*Therapeutische Monatshefte.*

Abnormal Micturition.—Eshner reports the cases of two girls, twelve years old, one of whom complained of burning in urination, with infrequency of the act, the other of increased frequency. In both, relief followed administration of fluid extract ergot and tincture belladonna, five drops each. The only assignable cause for the morbid conditions was low atmospheric temperature.—*Philadelphia Polyclinic.*

Adenoid Growths and Headaches.—A boy sixteen years of age, who had suffered headache for three years, also presented adenoid growths; his eyes were in good condition, but he complained of catarrh. The headache would begin in the morning and last until noon. The growths were removed, when the headaches at once disappeared, to never return again.—*Maryland Medical Journal.*

Potassium Bichromate.—Ide points out that this remedy is of value in measles where the patient is hoarse and complains of dryness and a sensation of a foreign body or plug in the throat; also where there is coryza and a violent dry cough with difficult expectoration of a tenacious, stringy, even bloody mucus.—*Zeitschrift des Berliner Vereines Aerzte.*

Relief of Thirst and Dryness of Mouth.—Thirst and great dryness of the mouth in illness are often relieved by a teaspoonful of powdered gum arabic, beaten thoroughly with a couple of teaspoonfuls of glycerin, to which are added a glass of cold water and enough lemon-juice to make the mixture palatable. The mixture may be taken freely.—*Medical Times.*

Bismuth Paste for Orchitis.—A thick paste consisting of subnitrate of bismuth and water is the best application for swollen testicles. It relieves the pain and the burning sensation, and the swelling rapidly subsides. It is equally useful for burns and scalds and as an application for sunburn, blistered skin, and chafing of the groin.—*Modern Medicine.*

Gonorrhœa in Women.—Both urethral and vesical irrigation should be made with a solution of potassium permanganate, one to 1000 or 2000, according to case. The irrigation should be practiced every day, at least two pints of the fluid being employed, the usual duration of treatment being from ten days to two weeks.—CUMSTON.

Chloride of Lime for Snake Poison.—Doctor Calmette, of Paris, recommends the injection of a solution of chloride of lime (hypochloride of lime) into the tissues around the wound, in cases of snake-bite. The solution should be of such strength that 100 cubic centimeters will contain eighty millimeters of chlorine.—*Exchange.*

Phytolacca in Epithelioma.—Doctor Goodman claims that the fresh juice of poke-root leaves made into a plaster will positively remove epithelioma. The application causes severe pain.—*Western Druggist.*

Bee-stings.—The fresh juice of the poppy plant applied to recent bee-stings gives immediate relief and prevents inflammation.—*La France Médicale.*

Medical Progress.

THE PINEAL BODY.—In *Popular Science News*, Hinrichs presents an illustrated article on the comparative anatomy of the pineal body. Her thesis is, that this body or "gland" is the rudimentary third eye of man and all vertebrates. The central point of our brain, which so long has remained a mystery to the student of human and comparative anatomy, now appears as the rudiment of a third eye, overgrown and depressed by the immense development of the brain. In other words, at the expense of a third eye, man has secured his brain, the organ of intellect. This discovery is not only very interesting, but also remarkably instructive, since this rudimentary third eye of man was looked upon by Descartes as being the seat of the soul.

In closely examining the skulls of certain lizards, it was found that near the top of the head, under the dark opaque skin, and often in the very bone, an almost perfect eye exists, though no ray of light ever could reach it. This eye shows a crystalline lens, a retina of very complex structure, and an optic nerve; in fact, all the essential parts of a perfect eye. But, being covered by the opaque skin of the animal, it is absolutely useless. If this optic nerve is traced to the brain, it is found to connect the eye with the so-called pineal gland of the brain. This pineal gland is in no sense of the word a real gland, but a definite portion of the nervous tissue of the brain, invariably located just back of and partly over the cerebrum, and in front of the rounded brain mass which generally is considered to correspond to the *corpora quadrigemina* in man.

It is probable that this third eye was, at an earlier stage of development, not rudimentary, but in constant use. A moderate modification—namely, a transparent integument—would suffice; this is exactly the condition of the normal eyes in reptiles to-day; the skin covers them, but it is transparent where it passes over the eye. In the skulls of some of the gigantic reptiles of the earlier age of this globe, paleontologists have long ago found a large round perforation. Probably this was the socket of the third or pineal eye of the ichthyosaurus, the plesiosaurus, and the labyrinthodon. But a much more important conclusion must be drawn from this discovery, namely, that in all vertebrates, even including man, the traces of this third eye remain to this day. The pineal eye of lizards being connected with the large pineal gland of the same, it would seem that

the pineal gland itself is but the nerve centre or optic thalamus for this third eye. In all reptiles and amphibia the pineal gland is large; so it is also in fishes. In the higher vertebrates the cerebrum develops very highly, overgrowing the posterior portions, under the influence of which preponderance of the cerebral mass the pineal body is more and more repressed into rudimentary forms. But it remains with obstinate pertinacity. It is even always present in man—though here only the size of a pea, and rudely resembling a pine cone in shape. It seems also degenerate in structure, having hardly any nervous tissue. These facts of form and structure have given rise to its name, that of pineal gland. The position of the pineal gland in man is almost in the very centre of the brain. The pea-like rounded mass attracts attention when the third ventricle of the brain is opened. It is almost free, being held in place by two light, stalk-like bands or peduncles, which connect it to the cerebrum anteriorly. The gland, so-called, is rather vascular, and contains, also, crystalline mineral matter, the so-called *acervulus cerebri*, consisting mainly of phosphates.—*Journal of the American Medical Association*.

THE SEXUAL NOVEL.—There is of late a tendency among writers of fiction to produce works treating almost entirely of sexual subjects; in fact, the so-called "woman novel" is concerned with nothing else—unless, indeed, it be subjects that grow out of the original one, like hereditary syphilis. These books are generally immoral, wrong-headed, and physiologically incorrect. One of the silliest of its class is "The Woman who Wouldn't." We received a copy of this work for review, and almost coincidentally with it a little book called "Baby Buds." We give the authoress of the latter every credit for wishing to do her best to explain to children a subject which needs no explanation, and about which they will learn quite soon enough; but we wish to point out that Opa-lia, the fatuous heroine of "The Woman who Wouldn't," is just the sort of character that would be produced by being nourished on "Baby Buds" in childhood. And what does the authoress of "Baby Buds" do? She is talking to a child aged four, and trying to explain "where our new little baby came from." After a great deal of beating about the bush and talking about plants and pollen, she says: "Mammals or birds have no need of bees or moths to transfer the pollen substance from the male to the female, for they can approach one another for that pur-

pose. . . . Indeed, they do so approach at certain times, that the ovules of the female may receive some of the pollen substance. How this fully comes about you can barely understand until you are older." This, of course, is quite true; then what was the use of beginning, and to a child aged four, too? The "woman who wouldn't" married her Alan "only in church," as she explains, and on their wedding night she says, "I trust you so much that I want you to come to my room and help me to un—" dress she was going to say. . . . Then she added—"pack." Eventually, as might have been expected, her husband took up with another woman, and then the woman who wouldn't became the woman who would and did. It is undesirable that the writer of "Baby Buds"—evidently a well meaning, refined, and delicate-minded woman—should try to explain matters to her children at such an early age; those of the age of twelve or thirteen may be told certain things. With regard to works of the class of "The Woman who Wouldn't," it is a pity for any writer to sit down and write outside of his or her environment. The stories of the Decameron, the various Contes, the Restoration comedies, and the Georgian novel are amusing and wholesome compared with many of our nineteenth-century writings. But they were written in the thoughts and manners of the time, without any idea of advertisement. Their authors had no missions or high moral aims, and these works, "Pamela," "Joseph Andrews," "The Country Wife," and others, will live when the women who didn't and couldn't and wouldn't are totally forgotten.—*The Lancet*.

HYDROPHOBIA.—The following returns of the Pasteur Institute for the past ten years are taken from the *Annales de l'Institut Pasteur*:

Year.	Number of Persons Inoculated.	Number of Deaths.	Rate of Mortality.
1886	2671	25	0.94
1887	1770	14	0.79
1888	1622	9	0.55
1889	1830	7	0.38
1890	1540	5	0.32
1891	1559	4	0.25
1892	1790	4	0.22
1893	1648	6	0.36
1894	1387	7	0.50
1895	1520	2	0.13

If these figures do not prove that the danger of hydrophobia is greatly exaggerated in the popular mind, we do not know what

proofs can do so. Here were 1520 persons, not only bitten, but so badly bitten that they thought it worth while to travel and seek Pasteur's aid, and bitten under such circumstances that Pasteur recognized some danger. They represented, probably, the worst cases out of many thousands, the great majority of whom did not resort to Pasteur. Of the 1520 patients who were thought worthy of inoculation, only two died. Why, according to these figures, a cold in the head is as dangerous as the bite of a so-called rabid dog. The explanation is forthcoming, however, when we are told that, out of the 1520 patients, only 122 were bitten by dogs proved to be rabid; in every other case the animal was only suspected. In the case, therefore, of persons bitten by dogs positively mad, the mortality, after the patients had been subjected to Pasteur's inoculation, was only .016 per cent. How much of this happy immunity from hydrophobia was due to the inoculation, and how much to Nature, cannot be judged until we can compare with these cases a sufficient number of other cases bitten by unquestionably rabid dogs, but never inoculated by Pasteur. We believe, however, that the rigid enforcement of the law against stray dogs is due, to a great extent, not to the dread of hydrophobia, but to the desire of every one to reduce the excessive number of useless curs, which, rabid or not, have come to be an utter nuisance. We sympathize in such desire, and would be glad to see a wholesale weeding out effected by doubling the dog tax and by ordering that those animals not taxed, registered and effectually controlled and cared for should be "removed;" only we object to have that purpose effected by creating in the public mind a hydrophobia scare, for which, as we have shown, there is little scientific or statistical ground.—*Medical Press and Circular*.

DISCOVERY OF VASO-CONSTRICTOR NERVES OF THE HEART.—The announcement of Doctor W. T. Porter's discovery of the vaso-constrictor fibres of the heart, to which former allusion has been made, brings home the fact that the long-cherished dream of making the mammalian heart as accessible to research as any other muscle is now coming true. A quarter-century has passed since the experiments of Bowditch, Merunowicz, Luciani and Kronecker, in Ludwig's laboratory, led the way for that swarm of investigations of the isolated heart of the frog to which pharmacology and practical medicine owe so much. During these years, more than one investigator, tempted by the harvest tha

waited on success, has endeavored to isolate the mammalian heart. Martin nearly succeeded, but was obliged to keep the pulmonary circulation intact in order to feed the heart with oxygenated blood. Ludwig, with Pawlow and Stolnikow, greatly improved the details of Martin's method, but was foiled in turn by the difficulty of oxygenating the blood in the absence of the lungs. And yet how simply this great obstacle was finally overcome! Hedon and Gilis, in 1892, received the body of a man guillotined three-quarters of an hour before. They tied the descending aorta and the arteries that spring from the aortic arch, and injected into the aorta defibrinated dog's blood. The semilunar valves closed, the blood streamed through the coronary arteries, and the heart recommenced its long-interrupted beat. Hedon and Gilis went no further. Their method has since been put into practical use by Langendorff, in Rostock, and in the Harvard Medical School. The isolation of the living mammalian heart has become an easy and certain operation. The discovery of the vaso-motor nerves of the heart is as yet the most valuable fruit of this procedure, but it is easy to see that a most enticing field of investigation is now open and that results of the greatest interest are likely to be attained.—*Medical Record*.

AN ABDOMINAL BRAIN.—The abdominal brain annually exploited for the benefit of the reflex fanatics, actually existed in the *Stegosaurus* of the American Jurassic. This saurian could support itself upon its tail and two hind legs, a posture now possessed by the kangaroos. The fore limbs had as much freedom of action as a human arm, the fore paws were provided with five fingers, but the large and powerful hind legs had only three toes, covered and protected by heavy hoofs. The great plates, placed in a row along its back, gave the appearance of the comb of a cock. It had two sets of brains, one in its skull and another ten times as large in the region of its haunches. This most remarkable dinosaur was partly aquatic in its habits, but passed much time on dry land. Provision was made for assuming an upright position in sitting or walking, in the massive proportions of its hind quarters. With its enormous proportions, strength, and the four pairs of huge spines in its powerful tail, the *Stegosaurus* must indeed have proved a formidable opponent to any form of life contemporary with its own. Its teeth, however, indicate a diet of soft succulent vegetation, hence its heavy armament was intended for

defense rather than attack. Evolution clearly tried the experiment of an abdominal brain. It did not work, but a mythical reminiscence of its existence clearly survived to furnish the exploitation necessary for the support of certain abdominal surgeons with incoherent literary tendencies.—J. C. BEARD, in *Popular Science Monthly*.

A PECULIAR ILLEGITIMATE BIRTH.—A short time ago a girl of sixteen, of good social standing, gave birth to an illegitimate seventh-month foetus in the presence of her own mother without the slightest suspicion being aroused as to the cause of her suffering. The family physician was summoned to attend the girl for "cramp colic." While examining his patient he discovered, by accident, the umbilical cord, which, by the way, the girl had severed as soon as the foetus was born. He at once recognized the necessity for great diplomacy, and quickly arranged for the mother to go to a distant part of the house for *hot water*. During her absence from the room he delivered the placenta, carefully wrapped it and the foetus in a towel, and secreted the parcel in his overcoat. On the return of the mother the doctor informed her that her daughter would, after a few days, be entirely well, giving as the reason for this positively favorable prognosis that he had "removed from the uterus a large amount of clotted blood, the result of the suppressed menses." This explanation readily satisfied her, and, although assisting in the immediate after-care of the patient, she did not even suspect her daughter's chastity nor the real cause of the "blood clots."

The remarkable feature about this case is the fact that, while passing through the second stage of labor, the girl so disguised her suffering that her mother was kept in blissful ignorance of the real cause of the "cramp colic." It is certainly interesting, too, from a medico-legal standpoint, and we doubt if there are many such experiences on record.—*Virginia Medical Monthly*.

SHORTENING OF THE FEMUR.—In all cases of shortening of the lower extremity it is highly essential to investigate the condition of the neck of the femur. If this plan be followed as a regular rule, the explanation of many cases of shortening, otherwise puzzling, will be rendered plain. The causes of shortening of femur may be classified as follows:

Impacted fracture of the femoral neck:

Arrest of growth of the neck following disease the result of injury:

Disease of hip-joint:

Arrest of growth at lower end of bone from disease of the epiphysis:

Arrest of growth of lower end following disorganization of knee-joint.

When the shortening of a leg amounts to no more than a quarter of an inch the defect may be disregarded; oftentimes this is present naturally. Again, a shortening of half an inch is by no means infrequent after fracture of the thigh. In measuring for any shortening that may be present in a lower limb, it is a good plan first to compare the length of both limbs from the top of the great trochanter to the external malleolus. If the measurement be the same on both sides, then it is obvious that the shortening must be confined to the neck of the shorter femur.—THOS. BRYANT, in *Medical Press and Circular*.

FEMALE PELVIS IN PRIMITIVE RACES.—Stratz investigated a series of cases in Java to test the accuracy of certain theories in respect to the relative characters of the pelvis in European and in barbarian or semi-civilized women. Faayer, of Leyden, declared twenty years ago that the Javanese pelvis was unusually round at the inlet. Stratz reminds obstetricians that this theory was based on the examination of a few macerated pelves. He, therefore, measured a large number of pelves of Javanese women living up-country. Two races were included in his series, the more primitive being darker, more slender, and smaller. The measurements showed little or no difference more than could be explained by the small general proportions of one of the races. The same may be said of the difference between the average Javanese and European pelvis. As it happens, however, the theory of Faayer seems substantially correct, the transverse measurement of the Javanese pelvis being, on an average, relatively small. The obstetric teacher should also bear in mind that Stratz found plenty of contracted pelves among these primitive women, who, escaping the evils of civilization, do not enjoy its benefits.—*Nederlandsch Tijdschrift voor Verloskunde en Gynæcologie*.

TUBERCULOSIS OF THE WRIST.—Recently, before the Lambton County Medical Society (Ontario), Doctor Newell presented a boy with a swelling of the wrist and little finger, that was thought to have started from an injury. Tonics were administered internally,

the wrist painted with iodine and put at rest, and ultimately placed in a plaster-of-paris bandage.

At the time the case was viewed by the Society, the wrist was improved, but the finger was considerably worse—inflamed, swollen to two or three times its natural size, and presenting several fungating spots. A small tumor presented on the palmar surface of the second phalanx of the thumb. It was believed the little finger would require removal.—*Dominion Medical Monthly*.

ACUTE RHEUMATISM IN CHILDREN.—In a recent discussion before the British Medical Association, Doctor W. B. Cheadle expressed the opinion that rheumatism is a general disease; but while in adults the most striking sign is arthritis, in children this occupies a much less important place. Among rheumatic diseases he included endocarditis and pericarditis, chorea, purpura rheumatica, subcutaneous nodules, and the exudative erythema. Chorea and endocarditis are sometimes found in association with scarlet fever, but even in such cases he believes there is a rheumatic basis. There is probably some morbid agent at work in the production of rheumatism, and he is inclined to anticipate that this will prove to be a micro-organism.—*Pediatrics*.

SUBNORMAL TEMPERATURES.—Schnicker and Zahrtmann both report cases of very low temperature. In the two observations of the first author the temperature in the rectum was 93.2° F. and 78.8° F. several days before death; while in the case seen by Zahrtmann a temperature of 89.6° F. was noted after an attack of profuse bleeding from the kidneys, the patient recovering. These subnormal temperatures were all observed in asylums for the poor and destitute.—*Universal Medical Journal*.

TO DETECT INTESTINAL PERFORATION.—It is said perforations of the intestine can be detected, if tympanites be present, by the respiratory and cardiac sounds becoming audible on pressing the abdomen.—*New York Medical Times*.

THE HEART IN PREGNANCY.—It is claimed that hypertrophy of the left ventricle occurs in normal pregnancy, and that a certain amount of dilatation of all the chambers of the heart also occurs.—*Kansas Medical Journal*.

The Medical Age.

VOL. XIV.

DETROIT, MAY 25th, 1896.

NO. 10.

Original Articles.

THE TURKISH BATH IN MENTAL DISORDERS.

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The treatment of disease at the present day is not based on "guesses" or "surmises," whatever might have been the case many years ago. This is the language of the empiric, not that of the man of science. There are intelligent men in our profession at the present time who are now able to diagnose with extraordinary accuracy the pathological changes going on in the brain; so wonderful has this knowledge become that it is only to be expected that we should gradually but surely progress in the investigation of the treatment of such complaints. We learn from our experience that by opening the floodgates of the skin from time to time, and submitting ourselves to the manipulation of the shampooer, in the Oriental fashion, we may attain unblemished health under certain circumstances both in mental and bodily complaints. During a long experience in diseases of the brain and nervous system I have had frequently to resort to the use of the Turkish bath as a remedial agent. I allude especially to cases of what is known as "brain-fag," where the victim is reduced to a very low degree of vitality. I have found that after a systematic course of Turkish baths, in many instances the mind recovers its wonted condition, and the brain-exhaustion diminishes, if not entirely disappears.

Of course, the use of cold shower-baths in the treatment of mental disorders has been known to the profession for a great many years. I have also found it beneficial in the treatment of acute mania. A patient is brought to the asylum in a state verging on cerebritis and exhibiting all the well recognized symptoms of sanguineous congestion

of the brain. He is wildly delirious, the scalp burning hot, the skin dry and parched, the conjunctivæ injected, the pulse rapid. It has been found in such a case that material improvement has taken place even after the first Turkish bath; I would advise that the first bath be of short duration, and that following this each alternate bath be of gradually increasing length. In the treatment of acute brain disease the whole process of the first bath should not exceed half an hour.

"Without principles," says the great Doctor Cullen, "deduced from analytical reasoning, experience is a useless and a blind guide." Appreciating the truth of this dictum, we are naturally led to ask ourselves the question as to the rationale of this treatment in acute brain diseases. The answer plainly is, the gradual and general lowering of the vital powers, causing a certain nervous prostration by means of which the cerebral vessels become relieved and the system calmed and quieted. In insanity the *vis vite* is often reduced to the lowest possible condition. In the great mass of acute cases of disordered mind which the physician is called upon to treat, particularly in our public institutions, the nervous system is in a state of positive exhaustion and debility.

The furor, the violence, the maniacal excitement, the muscular resistance, so often associated with insanity, are generally symptomatic of profound nervous and vascular depression. The excitement of the insane is an excitement without power, and it must be left to the discretion and experience of the physician versed in the practical use of the Turkish bath to discriminate as to what acute cases it may be used in beneficially, for in some cases it is our duty to conserve and husband the flagging and ebbing vitality of the patient until the mind recovers its equilibrium. If in the treatment of acute brain

diseases the Turkish bath is prolonged in the first instance, fatal results may follow; of this there is abundant proof. Therefore, in its use in such acute diseases, much discretion must be used. Insanity does not result from active inflammation of the brain, and if such were its origin no physician would be justified in attempting to prostrate the system of those mentally disordered. In cases of profound cerebral excitement the patient often recovers under the combined influence of a tonic and stimulant treatment. I have known violent mental perturbation to be considerably mitigated, and in many cases cured, by the administration of stimulants, combined with iron and quinine. Here is an instance where it would not do to prostrate the patient, but to stimulate him. So in the application of the Turkish bath in such cases, it becomes an imperative duty to consult one versed in its use. An excited patient may be made manageable and docile for the time being, but it will be quietness and docility gained at the expense of reason and perhaps of life, if the bath be prolonged in inappropriate cases.

The treatment of insanity by baths of various descriptions has long been in vogue in various countries. Esquirol, the first to denounce many of the abuses found in the treatment of the insane, freely advocated a cold douche shower-bath in the treatment of insanity, and to the use of this measure he attributed the cure of many of his patients. In his "Maladies Mentales" he records cases where the cold affusion was followed by tranquillity in the first instance, and on a repetition of it by complete recovery. A case is mentioned where the use of the bath was followed by shivering and a slow and weak pulse, and ultimately by sleep which lasted for four hours, during which period copious sweating took place, and on awakening the patient found that his delirium had passed away and reason had returned. Esquirol concludes from his experiments "That the douche on the head has a sedative physical action on account of the cold, and a moral action as a means of repression. The generality of convalescents declare that they have experienced benefit from its use, and some patients ask for it *il ne faut pas en abuser.*"

The danger, however, of the too frequent use of the cold shower-bath came to be recognized, and to prevent a misuse of it the Commissioners of Lunacy in England framed a series of laws to regulate its use. It is now but rarely made use of except in neurasthenia and in hysterical subjects, in both of which cases it produces beneficial results, especially when it has been persevered in, and in some cases of melancholia, the bath lasting from fifteen seconds to half a minute. The warm bath is a wonderful remedial agent in tranquillizing the nervous system; it acts frequently as a powerful soporific, and allays mental irritation.

The Turkish bath has also been used in alcoholic cravings, and with a certain amount of success. The functions of the skin are twofold—secretion and absorption; by it we perspire, and by it we may be said to breathe. It is a well known physiological fact that the oxygen absorbed by the skin through its seven millions of pores has the same effect as that taken in by the lungs—the purification of the blood and the supply of caloric to the body. The Turkish bath, causing profuse perspiration and so opening and cleaning the seven millions of pores, renders them permeable in an increased degree to the oxygen, which burns off the accumulation of effete matter left by the stimulants; increased vigor and vitality are thus given to the system, and the alcoholic craving may be and is thereby diminished.

The bath may be used, as I have just said, beneficially in certain cases of melancholia of recent occurrence, without any possible risk ensuing; it often calms the nervous system and reduces the mental depression. Also in cases of threatened recurrent mania it sometimes cuts short the attack if used immediately when the symptoms are returning. At one epoch in medical science, depletion was freely used in cases of insanity; then for a time it disappeared altogether, but it is now coming into use again among some physicians. The idea used to be that the depressing, lowering, and overpowering plan of treatment of the insane was most disastrous in its results. It was then considered by all practical and sagacious psychologists experienced in the care of the insane, that in the morbid affections of the mind a condition

of brain existed which would not tolerate a depressing and prostrating mode of treatment.

There is a vast difference between the use of the cold shower-bath in the treatment of insanity, and the use of the Turkish bath. In the former there is an immediate depression and prostration of all the vital energies, and the effects sometimes prove rapidly fatal. Consider for one moment what would be the effect of using a prolonged shower-bath in the treatment of delirium tremens, puerperal mania, or the insanity following. In this class of cases we often witness extreme excitement and violence associated with profound vascular and nervous depression. How dangerous then must be the cold shower-bath in such a condition, entirely overlooking the pathological state of the patient! The treatment of the insane must be a rapid reduction of the physical and mental powers of the patient to the minimum standard, *if* it be all-important to make a noisy, excited, destructive lunatic tractable and quiet. If the object be to preclude the necessity for the use of mechanical restraint, then continue the shower-bath; but if it be the intention to carry out a proper curative mode of treatment by some form of ablution, the Turkish bath has proved itself to be the remedy needed. I have known many instances of death resulting from the unwise use of the prolonged cold shower-bath in the treatment of mental disorders, but I know of no instance where death has resulted from the Turkish bath.

Let us ask ourselves what would be the result on a patient suffering from a depressing and exhausting disease—and insanity is especially of this type—on whose head was allowed to fall a continuous volume of cold water for a period varying from a quarter of an hour to half an hour, as was formerly practiced in some large asylums. He emerges from such a bath with the powers of life reduced to the minimum.

I have records of thirty-two cases of acute insanity treated by prolonged use of the cold shower-bath, with the following results: fourteen recoveries, one death, the rest remaining in the asylum. I might mention that in these cases the shower-bath was used periodically, as occasion required, and was prolonged for

the time I have previously mentioned. It is specially fatal in the earliest stage of acute mania, and may be called an heroic treatment to adopt. In many cases it was apparently made use of for the treatment of insubordination, as a means of quieting the patient, and with effect.

The plunge-bath was formerly, and sometimes is now, substituted for the cold shower-bath. But this appears to me to be the old story of Scylla and Charybdis. I do not know whether any of my readers can realize exactly what I mean by a plunge-bath in the sense I am now using it. A violent and excited patient is forcibly taken by the legs and plunged head foremost into an ordinary swimming-bath; he is not permitted the use of his limbs when in the water, but is detained there, or taken out and plunged again into the bath, until the required effect of tranquillity is produced. Of course, quietness, submission to authority, docility, and freedom from excitement and violence, are the natural consequences of this gentle, soothing treatment. I say most emphatically that both the prolonged cold shower-bath and the cold plunge-bath, if used at all, are generally made use of for obstructive patients and not as a remedial agency. In cases of neurasthenia or hysteria such a treatment is often very beneficial, but not in dealing with insanity pure and simple, especially in chronic and violent cases.

Now the Turkish bath is given as a remedial agent, not as a means of unwarrantably controlling the individual. Its use has been generally adopted in England since 1861, when it was first introduced and used extensively. Dr. Lockhart Robertson, the late Lord Chancellor's Visitor of Lunatics in England, and Dr. Power of Cork, were the two first to introduce the Turkish bath in the treatment of insanity. The first asylum for lunatics where a Turkish bath was constructed was the Devon County Asylum. It was here found useful in certain cases of melancholia where the skin was hard and dry, and in some cases of dementia. The use of this measure was then only in its infancy. I was requested at the opening of the second series of Turkish Baths in London to preside as chairman; this was about twenty-five years ago.

Last year I derived much pleasure from a visit to Doctor Shepard's Turkish baths in Brooklyn. I found them in every way perfect and quite up to date in every possible requirement. At the time of my visit everything I said or did was chronicled in the press, and this event also found its way into the New York journals. I can safely say that I have never had a more enjoyable bath than that which I had at Doctor Shepard's.

When the Turkish bath was first introduced into my own country it was said by some that so long as we diligently and regularly had recourse to the Oriental bath, neither malaria, miasma, infection, nor the poison of fever would find a lodgment in us; all that was hurtful would be swept away in the streaming perspiration. The mind and the brain, nay the whole of the nervous system—central and peripheral—would hold their own against the deteriorating influences which haunt our daily life. Man may indeed confront the world armed in proof at all points against every danger which may assail his frame, whether wholly or in detail, from morbid agencies, if he can only be persuaded to habituate himself to the use of the Turkish bath. Its chief action is depuration by the skin, but it also acts by diuresis, and its effect as a narcotic and tonic is well known. It may be considered, in fact, to be a complete *materia medica* in itself.

I think that all those physicians who have advocated its use in the treatment of disease, and especially of insanity, will never regret it, but it has been left to the wisdom of the nineteenth century to unveil the therapeutic use of the Turkish bath, and I trust that these few remarks may further its continuous use for the benefit of humanity in general.

WOUND-CLOSURE IN ABDOMINAL SURGERY.

BY W. P. MANTON, M.D.

Ephraim McDowell tells us that when he performed his first abdominal operation in 1809 he "closed the external opening with the interrupted suture" and placed a strip of adhesive plaster between every two stitches to "hasten the healing of the incision." Fol-

lowing the example of the illustrious "Father of Ovariectomy," celiotomists have ever since continued to employ the same form of suturing, and, notwithstanding the serious objections which have long been recognized as inherent to this method of closing the abdominal wound, no successful attempt to improve upon the technique of the procedure seems to have been made until within a comparatively recent period.

The object in bringing together the edges of the parietal incision is not solely to close the opening into the peritoneal cavity, but also to re-establish the integrity of the whole thickness of the abdominal wall at the point of operation. To accomplish this the severed parts of each structure must be again brought into the same relation with each other that existed while the abdominal wall was still intact—tissue must be joined to like tissue, peritoneum touch peritoneum, fascia fascia, muscle muscle, and skin skin.

The principal objection to the interrupted suture lies in the fact that in its use this part-to-part coaptation is but faultily accomplished, and, as the result, a deficiency in strength occurs at some point in the line of wound-union.

Externally, healing by first intention may to all appearances have been effected, but as soon as the patient gets about and resumes her customary duties, the weak spot—unable to withstand the intra-abdominal pressure and the strain put upon it—begins to yield tissue-thinning and -stretching takes place at this point, and sooner or later a ventral hernia is formed.

The defect in the abdominal wall may be so insignificant as only to admit the passage of a small bend of intestine or a tag of omentum, or so large as to involve considerably more than the whole extent of the original opening.—In a case upon which I operated some years ago at the Eastern Michigan Asylum, the hernial protrusion was as large as a toy balloon, and the hiatus of the rect muscles so great that the whole hand could be introduced between them, and the contents of the pelvis readily mapped out. In another case, a rupture in the fascia, the result of the patient's lifting a wash-tub partly filled with water, the opening was hardly the size of a lead-pencil end, just sufficient to

allow the impaction of the edge of an intestinal bend.

That these results are sometimes due to the carelessness of the operator in placing the stitches, is unquestionably true.

I well remember my amazement some years ago at seeing one of the first ovariologists of England sew up the abdomen after the removal of a large cystoma. He carefully pulled out the peritoneum, thrust the needle through its edge and then through the external skin—totally ignoring the all-important abdominal fascia. Subsequent inquiry disclosed the fact that ventral hernias were not infrequent in the histories of this great man's patients.

Yet—while such indifference may appear as little less than positively courting future disaster,—in spite of the most painstaking adjustment of the interrupted suture, and every care and precaution to avert untoward results, ventral hernias have occurred in the experience of every abdominal surgeon, and will continue to occur as long as this method is employed to unite the abdominal wound.

While some coeliotomists who still make use of the interrupted suture stoutly aver that ventral hernia is an almost unknown sequela of their operations, I believe the opinion of the large majority is not in accordance with this view or experience. Within the past few years I have had the misfortune to be obliged to repair this defect in my earlier technique, in three cases at least, and I am sure no one could have been more careful or conscientious in this very detail than I was at the primary operations.

Many other objections to the use of the interrupted suture might be adduced, as—the unsightly scars which persist at the puncture points in the skin, the danger of stitch abscess from infection through the skin, and, worst of all, the tissue changes around the stitch-holes which sometimes take place in poorly nourished individuals, and themselves lead to hernia at these points.

Fortunately, modern surgery, in the rapid advances of the past few years, has neither overlooked nor ignored the important facts just mentioned, and in the evolution of the buried animal suture has placed in our hands an ideal method by which the abdominal wound can be strongly and evenly united,

with nothing to be apprehended in the way of future mishaps.

In using this method, three prerequisites are imperative: A suture material that can be rendered aseptic; one that will hold the edges of the wound in apposition for a sufficient length of time to insure perfect healing before it is absorbed; and an aseptic wound.

In applying the buried suture, the edges of the peritoneum are first carefully adjusted, and then whipped together by a running suture; the fascia and muscle are united in the same or a similar manner; and finally the visible wound in the skin is brought together and fastened by a thread hidden beneath its surface. In subjects with very thick abdominal walls, suturing of the fat-tissue is also often advisable. The parietal wall is thus united in three or more distinct layers; tissue is thus joined to like tissue, and part-relation restored to its normal conditions.

The introduction of the skin suture requires some little dexterity, since the needle must never penetrate through the skin, the suture being carried from side to side just below the surface.

Marcy, to whom we owe the introduction of the buried suture, found by experiments on animals that "along the track of an antiseptically buried suture, cell-proliferation rapidly supervenes, new cells invade the softened tissue, and, *pari passu* with its absorption, a living band of connective-tissue cells replaces the whole line of suture." A firmly fortified cicatrix thus results.

From a considerable experience with this method of uniting the abdominal wound during the past five years, I have yet to see an instance of the giving-way of the cicatrix to any appreciable degree.

The suture material should be either of specially prepared catgut or kangaroo tendon. With the former I have had no experience—the difficulty of preparing it, and the unsatisfactory results which have followed its use in other operations, having strongly prejudiced me against it. The kangaroo tendon as prepared by Marcy, however, has invariably given good results, and is especially to be commended for burying in the tissues.

A RARE CASE OF ADDISON'S DISEASE.

BY DOCTOR DAVID HANSEMAN.

Despite numerous reports published on the subject, the significance of supra-renal affections in Addison's disease has not been universally recognized.—There is good ground for this. In only eighty-eight per cent. of all cases of Addison's disease are supra-renal complications encountered, and seventy-two per cent. of the modifications in the supra-renal capsules, anatomically established, are conjoined with Addison's disease. This discrepancy has made such an impression on certain investigators that they have regarded the supra-renal disease as secondary, hence incidental, and the primary disease is referred to the intestine, the solar plexus, the splanchnic nerves, or the spinal marrow. Now, frequently as modifications of these organs may be encountered in Addison's disease, they are yet in part so trivial that one can only with difficulty consent to regard them as the primary symptom of so grave a disease; and they are by far more inconstant than the affections of the supra-renal capsule. On the other hand, it is indubitable that the supra-renal capsules may be totally destroyed without the supervention of Addison's disease,—for example, I have the supra-renal capsules of a woman aged fifty-three, which were destroyed by metastatic cancer, and there is not a trace of Addison's disease. Again, there are undoubted cases of clinical Addison's disease in which the supra-renal capsules remain intact; but it may be urged that we are not sufficiently familiar with the modifications in the cell.

On the whole, therefore, the supra-renal capsules bear about the same relation to Addison's disease that the pancreas bears to diabetes.—Diabetes may exist with or without pancreatic disease, and pancreatic disease may prevail without diabetes. As the result of an exhaustive investigation of this subject, I have come to the conclusion that all forms of pancreatic disease may casually lead to diabetes; that there is a form of diabetes entirely independent of the pancreas; and finally, that a very definite affection of the pancreas (which I term granular atrophy) leads to diabetes with great regularity.

A similar relation may prevail between the

supra-renal capsule and Addison's disease, but here the investigations are far more difficult, for the supra-renal capsules, when diseased, possess a great tendency to caseation and tuberculosis, when the entire organ becomes quickly destroyed. Special interest must, therefore, attach to precisely those diseases of the supra-renal capsules in which caseation does not supervene, but which present other modifications.

Simple aplasia of the supra-renal capsules represents an affection which might also be termed *local nanosomia*, since all parts of the organ are present, only on a smaller scale. This affection bears a definite relation to the development of the remainder of the body, and shows positively that there is an altruistic bond between the supra-renal capsules and the rest of the body. As Weigert was the first to show, aplasia of the supra-renal capsules is a concomitant symptom of anencephalia. Thus far I have investigated eight such cases, and uniformly I found the supra-renal capsules atrophic. I have the organs taken from two such cases; in both, this formed the sole modification in the bodies of the children, besides the anencephalia.

But with such a supra-renal aplasia there is never a trace of Addison's disease. The so-called atrophies—frequently described in such connection—do not permit of sufficient analysis in all cases to justify definite diagnosis in each instance; this is particularly true of the older reports, made soon after 1855, when Addison published his first articles. But wherever we have an accurate description of the histological structure, we almost always find ourselves confronted with inflammations and fibrous degenerations. The following differs substantially from the foregoing, and for the conditions which it presents I have vainly sought an analogue in the literature of the subject, though it is possible that among the cases of so-called supra-renal atrophy in Addison's disease similar conditions prevailed.

Case.—Furrier, aged 30; both parents are alive and well; his health has always been good, barring two attacks of gastric catarrh. A third attack brought him to the hospital. The subsequent history of the disease offers little that would be characteristic in diagnosis, and this very fact strikes me as remarkable.

When he entered the hospital, June 11th, 1895, he showed very poor nutrition, a slight icterus, and pronounced general debility which increased rapidly as a result of the amazingly small quantity of food eaten and the frequent vomiting. Lungs, heart, spleen and kidneys were found normal. Patient had strikingly dark hair and almost black irides, so that the dark color of the skin was not very surprising,—the skin was especially dark-colored on the scrotum and around the nipples of the breasts, and there was an unusually deep pigmentation of several old scratch-scars and healed acne-pustules, besides a dark streak on the gum and at the perineal raphe, and on each side a pigmented spot. Death occurred June 26th, 1895, following increased debility but no new symptoms.

The autopsy revealed, in the heart, a brown atrophy of the muscular system; in the left lung-apex, a small slate-colored scar, with several small caseous foci; in the intestine, swelling of the follicles, red spots, swelling of the mucous membrane, and several hæmorrhages. The remaining organs, with the exception of the supra-renal capsules, showed no special modification. The supra-renal capsules had grown into the adjacent parts, and were united therewith by fibrous ropes. In surface-expanse they were about the ordinary size, only the right was somewhat too small. But I was particularly struck with the diminution in the transverse diameter: section showed no trace of yellow cortical substance; the whole consisted of a single layer of dark brown substance; the microscope corroborated the absence of yellow cortex—the whole mass was formed of a reticular tissue, in which lay large cells with pigment, similar to the large intermediate cells of the testicles. In individual places a small-celled infiltration was visible, but nowhere to any great extent; nor was new-formed connective tissue to be found anywhere in a large mass. While there were certain signs of a slight inflammatory process, the whole gave the impression of an aplasia of the cortical substance.—Whether it gradually developed through a pathological process, or whether this was a congenital defect, is doubtful; but it would be very strange how this man could reach the thirty-first year of life if this modification existed at his birth. The supra-renal affection must here bear the entire accountability for the Addison's disease, for there was no substantial modification in any nervous apparatus. The solar plexus and the connective nerves leading to the supra-renal capsules were quite intact, also the splanchnic nerve; only, in the solar plexus

there were a few pigmented ganglionic cells. No weight is to be attached to these, however, for such pigmented ganglionic cells occur frequently in the plexus, in all manner of diseases. No changes could be found in the spinal marrow.

The material feature of this case seems to be the fact that, apart from the absence of the supra-renal cortex, there was no other special modification in the entire body; hence I believe we must conclude that here lies the cause of the Addison's disease—in the present case at least. Whether bronze disease may develop without disease of the supra-renal cortex is a question which is not touched by the findings in this case.

Berlin, Germany.

PROLONGATION OF LIFE BY ELECTRICITY.

BY W. STUART LEECH, M.D.

G—, age three years and three months, extremely bright, dark hair, fair skin, born in the South, living in Minnesota for fifteen months, enjoyed good health up to the time he was taken with pertussis in September last. This disease ran its course in three weeks, apparently leaving no bad after-effects. Fluid extract of chestnut leaves was the only medicine prescribed.

On December 20th the lad was exposed to measles, which became fully developed nine days later, accompanied by bronchitis and an aural abscess, all of which kept him confined to bed or to his mother's arms for three weeks. Very little in the way of medication was given. Cold water was permitted and freely imbibed; several doses of muriate of ammonia in elixir liquorice were given for the cough; and after convalescence began, syrup iodide of iron was ordered in two-minim doses three times daily. Still the patient remained weak and anæmic; would cough occasionally, perhaps six or eight times a day. Physical signs of chest showed nothing abnormal. Excepting for slightly enlarged tonsils, which seemed to be the cause of the cough, there was no indication of a strumous diathesis. Bowels regular, but appetite continued poor.

February 2d, two weeks after the disappearance of rash, he awoke at 10 P.M. with a

prolonged spasmodic cough, somewhat resembling—but far more profound and distressing than—the whoop of pertussis. This paroxysm reappeared four or five times during the night, and about ten times the following day. Physical examination disclosed nothing more than vesicular breathing. Cold applications were ordered to neck, also astringents to tonsils, which gave some relief. After four or five days the paroxysms of cough were less frequent, but still continued appalling. Castanea and ammonia preparations had no effect. On the fifteenth day a mixture of extract belladonna and alum was given, which had a tendency to dry the cough, but a temperature of 103.5° appeared, which was reduced with water internally and externally. The speedy reappearance of the fever led me to prescribe a mixture of acetate of potash, sweet spirit of nitre, and spirit of mindererus, in anise-water, which kept the temperature reduced; but I was obliged to give as little of it as possible, on account of the weak stomach. Legs and body now began to show great emaciation.

On the sixteenth day physical signs showed crepitant, subcrepitant, and mucous râles in abundance, especially between the scapulæ. Apparently broncho-pneumonia had insidiously come on. Respiration from the beginning of the measles to the termination of the trouble varied between 26 and 38 per minute.

The most approved pneumonia treatment was carried out, although very little medicine was given. Every precaution was taken, and every effort made to strengthen the system; the temperature of the rooms, preparation of foods, and all minutiae were carefully looked after; but to no avail.

For sixteen days more the little fellow suffered—vomiting, thrush, diarrhœa, and curdled milk, each in turn requiring to be dealt with.—Meigs and Pepper's milk preparation with arrow-root was found to be the best thing to prevent curdling, while dilute hydrochloric acid and saccharated pepsin in syrup quickly remedied the thrush and caused a return of a slight appetite. Then the patient lost his voice from weakness. To increase strength, several manufactured food products were tried, but each and every one caused diarrhœa, increasing the emaciation tenfold.—My experience with all of these

foods, prepared for children or adults, has taught me to never give them where there is any tendency to diarrhœa or inanition.

On the eighteenth day the patient could not see, nor could he close his eyes; the temples were sunken, the corners of the mouth retracted—that characteristic so often seen as the end approaches,—and atelectasis was threatened with every effort to cough. The death symptoms multiplied until 4 P.M., when Cheyne-Stokes breathing set in. Patient was now no longer able to cough, swallow, or move: all hope was gone. Rectal alimentation and medication, throughout the course, had amounted to nothing; alcohol was no longer a stimulant. At 5 P.M. breathing became less and less; inhalations of spirits of ammonia were given to delay the extinction of the last spark. At 6 P.M. aromatic spirits of ammonia no longer had any effect; breathing appeared to cease forever, but the action of the heart was still perceptible in its weakness. Grasping at any resource, I quickly adjusted a thirty-cell galvanic battery, placed the positive pole to the chest and the negative to the nape of the neck, and used a rapidly increasing faradic current until I had reached fourteen cells. Breathing now commenced, only to fade away. At each like emergency I would increase the number of cells. This was continued until I had reached the twenty-ninth cell.—This made a duration of four hours for electricity. One more cell and all was gone. But before this was reached, greatly to my surprise, natural breathing commenced. I then began to diminish the force, and at last arrived at the starting point, when the patient was able to cough and drink with ease. I had used the electricity five hours continuously. When there was an effort to cough or swallow I would again apply it—from two to eight cells; this greatly facilitated both.

With the attendants it was as though one had risen from the dead. Every one was now buoyed up with hope and joy; tears were converted into laughter and rejoicing. I felt as if electricity was once more a victor. There was general improvement; physical symptoms became almost *nil*, and respiration returned to 25. Still there was not sufficient strength to close the eyelids, which had now been open for thirty-six hours.

Fourteen hours after the electricity was first applied, gastro-enteric symptoms with the most persistent tympanites supervened. In sixteen hours the little fellow gradually faded away. I would again have resorted to the electricity, but the eyeballs gave the appearance of approaching ulceration. Fearing total blindness and, perhaps, some profound nervous symptoms from the great amount of electricity given, I refrained from a second application.

One thing is certain: electricity prolonged the life of this patient sixteen hours. If it had been given sixteen days sooner in small repeated quantities, a life would perhaps have been saved, unless there was some tubercular development.

The inanition in this case, at the time of the application of electricity, had become so great that the digestive system was not strong enough to overcome the retrograde metamorphosis. From the appearance after death, not one ounce of surplus flesh seemed to be left, so great was the waste. The corpse was *literally* skin and bones. No autopsy was held.

Brooten, Minnesota.

SUMMER DISEASES OF CHILDHOOD.

BY DOCTOR W. H. FAULDS.

This time-honored topic seems to have lost none of its interest, and bids fair to retain its hold alike upon physician and laity. As long as there are poverty-stricken parents, ignorant mothers, weakly children, hereditary influences—in short, as long as there are babies to be reared subject to present conditions and environment—so long will the suffering and the death-rate among children afford interesting material for discussion by philanthropists, scientists, physicians, and sanitarians. Every year brings its samples of baby-foods, digestive agents, substitutes for mother's milk, anti-ferments, astringents, intestinal antiseptics, along with the periodical discussion by the profession of what seems to be a threadbare topic.

Personally I feel I have nothing new to offer, but shall consider the subject from the standpoint of individual experience in the use of means already well known to the profession.

In regard to the ætiology of the summer diseases of childhood, an experience of twenty seasons in the same locality leads me to believe that, aside from the extreme heat, there is no one factor which contributes so largely to the mortality from these diseases as the popular misapprehension as to the necessity for precaution in the use of cow's milk as food for infants. That this misapprehension on the part of parents is almost universal, is apparent from the fact that one rarely meets a mother who has any idea that her infant or eighteen-months-old child may be made seriously ill by the ingestion of too much milk; on the contrary, the majority of mothers labor under the too often fatal error that milk in some form is the only suitable food under all conditions, and that everything else, including water, should be excluded from the dietary of the sick child. Mothers, as a rule, seem to ignore the fact that climatic conditions influence digestion and assimilation, and that some change in the food is necessary to meet the wants of the economy, without overtaxing the stomach and increasing the irritability of the nervous system, which is already being exhausted by the high temperature, humid atmosphere, and other depressing influences of the summer season. They ignore entirely the fact that the majority of children, as well as adults, cannot digest the hard curd of cow's milk, especially during the heated term, and that if many mothers were compelled to take the same quantity of milk in a given time that is sometimes given to a one-year-old child, they would soon be in equal need of the services of a physician.

Another point seldom considered is, that the digestive organs of bottle-fed children are so often overworked, or, if you please, worked to their fullest capacity, during the winter and cool months of spring, as to handicap them when overtaken by the dangers of hot weather. How often the mother points with pride to her fat babe that is being fed on cow's milk, rich in fat, during the cold season, little dreaming she is thereby jeopardizing its chances of passing through the hot weather in safety!

A not uncommon experience is to be called to a feverish, thirsty child that is vomiting large milk curds, with offensive, profuse,

watery diarrhœa. The mother, alarmed at the condition of her little one, is afraid to give it water, for fear of increasing the trouble, and is allowing it to quench, or rather increase, its thirst with milk, full strength or diluted, as she is accustomed to preparing it. Fortunately for the child, the mother's fear of cholera infantum has prompted her to send for a physician, and, if not too late to counteract the deleterious effects of the decomposing milk curd, one more child is saved from the ignorance of its mother and the improper use of what she has been led to regard as an ideal food.

Indeed, so common is an experience like this that it would be safe to say that among a population of over three thousand there is scarcely a child of two years or under but some time during the summer months requires the services of a physician for gastrointestinal trouble, due to overfeeding with some of the substitutes for mother's milk. Many of these recover from the first, and sometimes from subsequent, attacks, but quite a percentage never rally from the injury done the digestive organs, and sooner or later die from inanition or some intercurrent affection of the brain or nervous system.

These are among the so-called cases of cholera infantum, but, if their history were carefully inquired into, in nearly every instance the starting-point of the trouble could be clearly traced to an attack of acute indigestion and auto-intoxication from cow's milk.

Last summer a twenty-months-old child was brought me, suffering from vomiting and diarrhœa, and the mother, in commenting on my instructions as to care in feeding, said: "One would think there is nothing in cow's milk to hurt anything." Another, to whom I had previously given directions in regard to its use, said: "I thought cow's milk was just the thing for the baby. When my husband was sick the doctors gave him nothing but milk, and the child's grandmother thinks it very funny that he cannot have all the milk he wants."

In pleasing contrast to this is the educated mother, whose whole concern is the proper care of her child. Without waiting for it to become ill, as soon as it is weaned she seeks the advice of her physician, knowing full well

the importance of care in the selection and use of artificial food. The quality and preparation of the milk or other food is the subject of the most minute investigation. The general condition of the child is the subject of every-day observation; the character of the stools is carefully noted, so that if there is undigested food, or milk curd, the relative proportions of milk and other food may be changed, or the total quantity of nourishment reduced. If there is fever or excessive thirst, milk is dropped entirely, and the bottle filled with pure water; and for several weeks after, weak mutton-broth, chicken-tea, or nice sweet buttermilk diluted with water—and these in small quantities—is the only nourishment thought of. When the child has sufficiently recovered to take its accustomed food, the latter is given in smaller quantities and in greater dilutions than formerly. Or at this point it may be thought best to make some change in the preparation of the food. The intelligent mother, remembering always that she is not to be governed by the advice of neighbors and friends in the selection of a food, speedily learns that each child, like an adult, is a law unto himself in the matter of nourishment; that the experience of a dozen mothers or nurses may be of no value in this particular instance. She will have learned too, that all the baby-foods contain something of value, and that each may be a proper food for a certain proportion of children if used with judgment; but she would as soon think of giving roast beef or boiled cabbage as to continue to give any kind of food which, after a fair trial, in various proportions, passes out of the bowels undigested.

But—sometimes is asked—if improper feeding is so potent a factor in the ætiology of summer complaints, why is it that the child of the average country mother is so seldom seriously ill with these diseases?

Everybody knows, or should know, that other things being equal, children living in rural districts have greater vitality because of the comparative purity of the air and water. But I believe that a no less important factor is, that for several generations the country mother has taken her own experience as a guide in the care of children, and is seldom known to give them cow's milk in excess at any age. Most rural mothers are

wont to declare that milk "is feverish," and it is only within recent years that they could be convinced that milk is a suitable diet in any form of illness.

Besides care in diet, there are other important things which engage the attention of the well informed mother. On the hottest days of summer, when the babe is feverish and restless, it is taken to the coolest room in the house and every attention paid to its comfort. Morning and evening, and on cooler days, it is carried into the open air or given a ride in the family carriage or electric car, precautionary wraps being always taken along. During the cool nights of late summer and autumn, when chilling of the surface of the body will often bring on an attack of cholera morbus in the adult, the little one is carefully clothed in a suit of light flannel, so arranged that if the bed-covers are displaced it will not lie naked until awakened by chilling. So confident is such a mother of seeing her child safely through this trying season that I have heard more than one say they believed it possible, with proper precautions, to rear any infant of average vitality.

It is sometimes said that weakly children succumb to summer diseases, while the healthy and strong survive under almost any circumstances. This I believe to be a mistake. Of course, other things being equal, the child of greatest vitality has the best chance for life; but I am convinced that many a child of less than average constitution lives because of the intelligent care of its mother, while others of much more than average vitality succumb because of the poverty, ignorance, and indifference of the maternal protector.

Though improper feeding and want of care are not the sole causes of summer diseases of childhood, they are too often a great factor therein, as well as the exciting cause of other diseases which help to increase the infant mortality during the trying "dog days."

Luzerne, Pennsylvania.

TREATMENT OF AMYLOLYTIC DYSPEPSIA.

BY REYNOLD W. WILCOX, M.D.

The picture is a familiar one, and all have doubtless failed many times to differentiate this particular malady, and in attributing too

much importance to gastric to the neglect of intestinal digestion. After all, the diagnosis is by exclusion, and its accuracy can be readily put to the touchstone of clinical experience.

The causes of the indigestion of starches are: Excessive ingestion of carbohydrates: Imperfect insalivation: Hasty mastication: Too diluted starch foods: Too great gastric acidity: Insufficient or diverted pancreatic secretions: Excess or abnormal activity of micro-organisms: Intestinal torpor or exaggerated peristalsis: Imperfect absorption of already digested food.

The following cases illustrate this form of dyspepsia, and also the benefit that has been derived from the administration of the new diastatic ferment introduced by Mr. Jokichi Takamine:*

Case 1.—H. E.—, aged 56, dry goods merchant, had suffered for years with dyspepsia, the attacks occurring chiefly during his busy season when hasty lunches and irregular hours were the rule; on ascending the stairs, dyspnoea developed of so severe a nature that speech was impossible. Eyes yellowish; dull headaches almost daily and one to three nights each week; heart irregular both in force and rhythm; hepatic tenderness; abdomen resonant, painful on pressure, and gurgling.

Calomel and sodium bicarbonate caused several copious, foul-smelling motions. A pill of podophyllin, irisin and euonymin was ordered for each night; also three grains of Taka-Diastase to be taken after each meal.

Seventeen days later, passages were softer and no longer foul-smelling; sleep and palpitation much improved. A month subsequent he was not sensible of any abnormality of the heart, and all medication was withdrawn excepting the Taka-Diastase. Three months after patient first began treatment he reported himself in excellent condition.

Case 2.—R. C.—, aged 40, merchant, a pronounced lithæmic, presented himself July 27th, complaining of various neuralgic pains, languor, disinclination to exertion, irritability of temper, constipation, and flatulence. The first sound of the heart was booming, the second accentuated; urine without albumen, sugar, or casts, but with much calcium oxalate, broken-down epithelium, and a specific gravity of 1.018.

*The first five cases cited have been before reported, and are added to this paper by permission of the *Medical News*.

He was ordered a mixed diet, avoiding potatoes; to drink one to two pints of alkaline mineral water between meals; to take outdoor exercise short of fatigue; and finally, two-grain doses of Taka-Diastase with one grain succinated caffeine after each meal.

August 10th he reported little change save of relief from constipation and flatulence. September 22d, his temper and capacity for work appeared much improved, and work required less exertion. October 30th, nothing abnormal in urine except calcium oxalate; specific gravity 1.022. December 9th he reported great improvement over his condition six months previously, and that he had dispensed with all medication.

Case 3.—V. E.—, army officer, presented himself July 30th. Had been troubled several months with morning nausea, constipation, distention of stomach and bowels most marked two or three hours after eating, dyspnoea on exertion at all times—more apparent following meals—which was accompanied by palpitation. He was fleshy, a large eater, accustomed to the use of alcohol in considerable amounts though not to the extent of inebriation. Pulse irregular and intermittent; shortened, high-pitched, metallic first sound of heart, accentuated pulmonic second sound; a small liver; abdomen tympanitic; urine with a trace of albumen and bile.

The patient was ordered to limit the quantity of starchy foods, diminish the amount of whiskey and at the same time dilute the latter; sodium phosphate mixture to be taken every morning; a pill of strychnine and nitroglycerin thrice daily; immediately after eating, five-grain doses of Taka-Diastase.

August 10th he reported flatulence had markedly diminished, and with it the palpitation and dyspnoea after meals; constipation also lessened. Conditions generally as before, except that there was less abdominal distention and tympanites. September 12th, improvement had continued as regards digestion, though the cardiac symptoms were but little better. October 1st, constipation so far relieved that sodium phosphate could be omitted. Cardiac dyspnoea was marked, however, and insomnia had become a prominent symptom. Beer was now employed in the place of whiskey. October 14th, albumen had increased in urine, and the cardiac symptoms were more severe, though the patient had better appetite and no longer complained of indigestion. The Taka-Diastase was now reduced to three grains per dose. October 20th, as there were no longer any complaints of indigestion, the Taka-Diastase was reduced to two grains per dose. Octo-

ber 25th, there being no dyspeptic symptoms, the Taka-Diastase was withdrawn.

About two weeks later the patient died quite suddenly. Aside from duodenal indigestion he suffered from incurable maladies, viz., fatty heart and cirrhotic liver, yet the betterment of his dyspepsia was too pronounced to be attributed to change in diet.

Case 4.—August 20th, W. L.—, aged 40, lawyer, complained of excessive flatulence accompanied by constipation that had existed four weeks. Of good habits, but a rapid eater and fond of bread and pastry; thin, nervous, energetic. Physical examination revealed only a sensitive and tympanitic abdomen; urine showed an excess of alkaline phosphates.

Sodium phosphate mixture was ordered, also five grains of Taka-Diastase to be taken with each meal; the food, moreover, to be eaten slowly, masticated thoroughly, and fluids limited to twelve ounces.

September 24th the patient declared he was greatly improved; flatulence only occasional. Sodium phosphate omitted. October 17th, symptoms entirely relieved; urine normal; Taka-Diastase omitted.

Case 5.—October 3d, H. S.—, aged 44, builder, three days before while bathing suffered from attack of cardiac pain, oppression, and vertigo, which latter was so severe he was unable to go about unfinished buildings. Very stout; color good; a hearty eater, and much of his time in the open air; for some months had observed abdominal pains after meals, flatulence, and dyspnoea.

Beyond a rapid and slightly irregular heart-beat, nothing was found except a fleshy abdomen and tympanites in the epigastric region; liver distinctly felt below the ribs.

Excessive imbibition of beer was corrected, and Taka-Diastase in six-grain doses ordered.

October 10th he complained that the capsules of Taka-Diastase caused great irritation of the stomach, with nausea followed by vomiting. Dose diminished to five grains in powdered form. October 14th, vertigo, flatulence and breathlessness improved. October 27th, Taka-Diastase diminished to three grains at a dose. December 14th, patient in such excellent health all medication was abandoned.

Case 6.—August 5th, N. J.—, aged 51, merchant, presented himself complaining he had suffered for several months with vertigo on stooping, breathlessness on exertion, palpitation of heart, distress in back, flatulence and abdominal pains two or three hours after eating. Though an active man, he was too stout; nothing abnormal as to heart or lungs,

but considerable abdominal tenderness and distention; trace of albumen in urine, excessive uric acid, and some broken-down epithelium—specific gravity 1.012. He was a rapid eater, very fond of bread, and drank largely at meals.

The amount of fluid was limited. Directions were given to eat more slowly, and the bowels were regulated by aloin and euonymin; besides, Taka-Diastase was ordered in three-grain doses after each meal.

August 14th, flatulence, pain and vertigo diminished. October 1st, marked improvement; albumen had disappeared from urine, which showed a specific gravity of 1.020; constipation and abdominal symptoms relieved. November 15th, distress in back gone; energy normal. December 18th, being perfectly well, the Taka-Diastase was discontinued.

Case 7.—August 30th, presented P. L——, aged 37, a lawyer who had been treated for malaria, nervous prostration, etc., for several years. Was morbid, easily fatigued, a frequent sufferer from nervous headaches; appetite capricious, though very fond of pastry; tormented by flatulence, constipation, and abdominal pains, the latter limited to the hepatic region; urine with traces of bile and an excess of urates, broken-down epithelium, and specific gravity of 1.022.

The patient was ordered to renounce hot biscuits and pastry; to take outdoor exercise, and a podophyllum pill at bedtime; five grains of Taka-Diastase with each meal.

September 19th, urine no longer deposited urates; patient's ambition had decidedly increased. October 8th, flatulence and constipation much less annoying; night pill omitted. November 17th to December 3d, able to endure more mental fatigue, and enjoyed outdoor exercise; a large amount of professional work accomplished without insomnia. December 31st, patient doing more work and with less disturbance of mind and body than at any time within the previous year.

Case 8.—September 3d, L. W——, aged 39, mechanical engineer, presented himself complaining of "fidgets," inability to concentrate thoughts, palpitation, dyspnoea; constipated bowels, flatulence after meals—during excessive nervousness considerable flatus was formed and expelled; supra-orbital neuralgia—due apparently to muscular insufficiency; urine very acid; deposits of urates.

He was directed to pay close attention to bowels and take a half a pint of mineral water in the middle of the morning and afternoon, ten grains salicylate of soda at night, and five grains Taka-Diastase after each meal.

September 26th, regular movement of bowels had been secured, and the brick-dust deposit in urine had disappeared; less fidgets, and able to pay closer attention to work without fatigue. October 25th, an operation upon the rectus muscle removed the neuralgia, and the dyspeptic symptoms were also much improved. November 17th, he reported himself much better, though obliged to undergo unusual mental and physical fatigue. December 24th, in excellent condition.

Case 9.—September 13th, S. I——, aged 49, manufacturer, very nervous, an inveterate smoker, presented himself complaining of extreme despondency and irritable temper. Invariably three hours after eating he experienced great distention of abdomen—necessitating loosening the clothing,—shortness of breath and expulsion of flatus; anorexia; obstinate constipation; urine deposited sediment on cooling, exhibited urates on microscopical examination, and presented a specific gravity of 1.024.

Ordered aloin, strychnine, and irisin, at bedtime; in the morning, on rising, Rochelle salts; three grains Taka-Diastase immediately after each meal.

This patient on September 20th and 26th showed progressive improvement, and on October 8th his condition was entirely satisfactory.

Case 10.—Miss D. G——, aged 26, a pronounced lithæmic whose symptoms were aggravated by vegetable diet, presented herself September 15th, complaining of listlessness, morbidness, being easily tired and frequently incapacitated by neuralgic headaches; also of bloating, pains in abdomen, occasional fainting-spells. Urine exhibited a specific gravity of 1.021, excessive uric acid, and much bladder mucus; anæmic murmur in neck; distended and painful abdomen; both eyes hypermetropic.

Ordered a half-pint of laxative mineral water each morning; the amount of tea taken daily to be diminished; three grains of Taka-Diastase after each meal.

November 24th, she reported she had been incapacitated for work but once since October 12th; much more ambition; exercised on a bicycle three or four times weekly. December 8th found her in excellent condition.

Case 11.—G. S——, aged 35, two years previously a diabetic, presented himself September 18th declaring his health excellent in every way save for psoriasis, headaches, lack of energy, coated tongue, and flatulence. Urine without albumen or sugar, but with a trace of bile and an unusual amount of calcium

oxalate and earthy phosphates; specific gravity 1.019.

He was ordered strychnine and nitro-hydrochloric acid with tincture gentian; also Taka-Diastase, four grains after each meal; sodium phosphate on rising in the morning.

A month later the headaches were fewer and the patient had more energy; tongue was clean. The bitter acid was now omitted and the dose of Taka-Diastase reduced one grain. December 31st the patient declared he was in better health than prior to his attack of diabetes.

Case 12.—E. J.—, aged 32, merchant, presented himself September 19th complaining of insomnia, neuralgic pains in abdomen and two hours after eating accompanied by distention and expulsion of flatus. Accustomed to eat hastily and largely; drank excessively of coffee in the morning; regular movement of bowels each day, but consisted chiefly of hard masses; an inveterate cigarette-smoker; excessively nervous.

A nerve sedative was ordered, with whiskey at bedtime; mineral water at dinner and breakfast; three grains of Taka-Diastase after each meal.

October 11th the fecal movements were less difficult, and for a week previously sleep had been undisturbed and without after-effects; masticated food more thoroughly and slowly. Mineral water at dinner only. October 18th, abdominal pain and neuralgia lessened and sleep usually good. October 29th, marked relief from all untoward symptoms; all medication stopped.

Case 13.—In October, Miss H. C.—, aged 50, presented herself complaining of exhaustive diarrhœa that had existed for a year back; stools offensive, with much mucus, and preceded by colicky pains; emaciated; frequently prostrated with headache; cold hands and feet; abdominal disturbance; pulse 90, soft and compressible; heart-sounds normal; urine with excessive alkaline phosphates; boiled milk with arrow-root her almost exclusive food.

Five grains of Taka-Diastase ordered taken after each meal; beef juice to replace boiled milk; water to be taken between meals.

October 30th, decided improvement observed in the patient's strength; though the fecal discharges were still offensive, they contained less mucus. Sodium salicylate ordered. On November 10th the character of the stools was much improved and there was a decided gain in flesh; toasted bread permitted. November 29th, further improvement; stewed oysters taken without any unpleasantness. December 13th, decided gain in strength.

December 24th, great improvement; Taka-Diastase continued, but other medication omitted; mixed and enlarged diet ordered.

This was apparently a case of catarrhal enteritis with fermentation, which neither a proteid or carbohydrate diet alone benefited.

Case 14.—October 8th, presented E. A.—, 65 years old, a thin, anæmic, but wiry man, who had suffered from papular eczema of the ankles for several years. Complained of occasional attacks of diarrhœa and of uneasiness in the epigastric region, relieved only by expulsion of gas; headaches; easily tired and of morbid inclination; tenderness on pressure in epigastric region, and tympanites; urine with an excess of earthy phosphate and calcium oxalate.

Ordered to take at bedtime mineral water and a hot bath; after each meal five grains of Taka-Diastase.

October 21st, itching of the legs was much relieved, and there had been no further attacks of diarrhœa. November 14th, flatulence and epigastric distress lessened. November 16th, no headache since last report. December 17th, patient expressed himself as highly satisfied with his condition.

The foregoing, along with a number of other cases, were under observation a sufficient length of time to permit of arriving at a fair conclusion as to the value of Taka-Diastase. In but two instances did I notice any unpleasant result from the administration of the medicament.—One is reported above; the other was a young man suffering from an attack of acute intestinal indigestion, whose symptoms were apparently unchanged (except the nausea was increased after administering the remedy. It will be observed that several of the cases might be classed as buccal dyspeptics.

So far as my experience goes, it would appear that Taka-Diastase is useful:

In many cases in which the symptoms are wrongly attributed to proteid indigestion:

In the vast majority of instances as a substitute for pancreatic extracts, malt mixture and various combinations hitherto employed

For the same relief of amylaceous dyspepsia which in cases of proteid indigestion was formerly obtained by acids and pepsin:

As a successful method by which patients can preserve their nutrition upon a mixed diet

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MAY 25th, 1896.

Editorial.

PHYSIOLOGY IN THE PUBLIC SCHOOLS.

In a previous issue of THE MEDICAL AGE we had occasion to comment upon the idiocy of enactments in certain States whereby physiology is required to be taught in the public schools, and the text-books themselves revised ostensibly in the interests of teetotalism—that is, wherever possible the so-called “evils of alcohol” are introduced, without either rhyme or reason, and frequently at the total expense of truth.

Why physiology should be taught in the public schools is not at all apparent to any medical man, since at best the teaching must be of a very garbled or superficial character, not at all conducive to reliability or thoroughness of knowledge.

Recently the English Sunday papers have discussed the question, “Should Girls Learn Physiology?” and every side and phase seems to have been quoted, even to expressions akin to that set forth in a note written by one fond mother to a teacher: “Don’t teach Eliza anything about her innards, it aint no good, and besides its rude.” Of course were also aired the views of those who consider that all woman needs to make her perfect is knowledge of her interior organism; but the most womanly view of the question appeared from the pen of Frances Power Cobb, who declares that for at least sixty years—or as far as her memory goes—the attention of young women of all ranks has been called to familiar diagrams exhibiting the feminine ribs as they should be, and the same ribs as they become when com-

pressed by lacing, with inner glimpses of the unhappy heart, stomach, etc., entirely out of shape and position, and having their functions manifestly impeded in the most alarming manner possible. She adds:

I find that in 1896 all these wise reasons have been absolutely thrown away. The wasp is still the type to which feminine beauty aspires, and it is also the one which the masculine mind—which knows full well the deadly and disagreeable mischief involved—presumably admires. . . .

The physiological knowledge which might possibly save mothers from either dying in childbirth or causing the death of their infants by unwise treatment, is not possibly communicable by class lessons to girls of fourteen and fifteen in a public school,—at least I devoutly hope we are yet unprepared to see lectures on obstetrics and gynecology thus delivered by school masters or mistresses.

It is also assumed that book lore would save many girls from being ruined by unscrupulous men. Again, I fail to apprehend how such knowledge can, with the slightest regard for common decency, be communicated to girls in a public school, instead of by their mothers in their private chambers. And I am likewise convinced that all the physiology in the world would be of small avail as a protection unless backed by moral principle, and the very modesty and delicacy which all the schools of instruction seem intended to break down. When lovely woman stoops to folly, it is not physiology, but piety, purity and a sense of duty which are her safeguards.

And the same remarks which the sensible Frances applies to girls are in a broad and general way applicable to the teaching of physiology to boys. The public school is not the place to teach children of either sex things physiological and anatomical that they most should know; and the miscellaneous hodge-podge which passes for physiology in the modern school curriculum is of no possible benefit, for the smattering which it imparts tends rather to excite morbid curiosity on undesirable lines than to wholesome understanding of the questions involved.

Returning again to the subject of alcohol, it may be remarked that the average youth in a very brief period of time discovers that the majority of statements appearing in the school physiology regarding spirituous liquors are fallacious, and consequently he assumes that all the statements made therein are equally so.

Private morals demand home instruction, and cannot be left to individuals, selected as

teachers perhaps for political reasons, who themselves are as ignorant of the truth as those they attempt to teach, and who have derived what little knowledge they possess from the same fallacious text-books.

PREMATURE BURIAL.

Every little while readers of the lay press are startled by accounts of premature burial, with all the horrors that can be imagined by the mendacious reporter. Even medical men are not free in this respect, and it is only recently a correspondent of an English medical journal aired his views along with "infallible" means of determining whether or not life was extinct.

It is, of course, possible—but hardly at all probable—that there have been a few rare cases of premature burial; but much of the plausibility of the thrilling tales and blood-curdling reports in this connection is probably due to the fact that during the development of the gases of decomposition the body may be moved within its coffin, and perhaps even considerably turned—this has been repeatedly proved, and in instances where there were no opportunities for error.

Recently appeared, in the *Medical News*, an editorial which deals with the question of premature burial so satisfactorily that we give it place *in toto*:

The medical profession is denounced for never having taken the trouble to discover some absolute and reliable sign of death, which, it is argued, the profession does not care for, because people are always buried out of sight as soon as life is pronounced extinct, and they can never come back to expose the mistake. According to the same authority there is one absolute and infallible sign to which our noses would have led us long ago if we had but taken the trouble to follow them, and that is decomposition. Unfortunately for this assumption, however, this sign may appear in any part of the body to almost any extent, and involve a large part of either the external or the internal body-surface long before death, as the merest tyro knows who has seen a case of hospital gangrene, of membranous dysentery, of phagedena, of pemphigus. It is, however, a striking commentary on the vagueness of the line that divides living from dead matter that, after all these centuries of investigation, no one, nay, no two, signs can be designated, the presence of which absolutely indicates death and the absence of which positively proves life.

Nevertheless we venture the statement that, ex-

cept in war-time, cases of premature burial have been and are extremely rare, and will be practically impossible in the future. In the first place, nearly all the reports of such incidents are of a lurid sensational and dramatic character, and either highly improbable in themselves, or utterly unsupported by adequate evidence.

The ordinary coffin, moreover, still retains the traces of an origin that has long been otherwise forgotten, in both its peculiar "coffin-shape" and its tightness—viz.: the original Norse custom of burying the dead in boats or galleys sent out to sea at sunset—so that the amount of air that can penetrate its joints when the lid is screwed down is extremely small. The modern casket, it is true, has lost the peculiar shape, but has added to the tightness, and, indeed, ability to render it air-tight is an especial boast. Granting, however, the highly improbable condition that one-half the carbon dioxide diffuses through these chinks as fast as it is expired, we would still be confronted by the fact that the air in a coffin in which a living body is enclosed would be a rapidly fatal narcotic poison within ten minutes after the lid has been fastened down—in fact, before it can be lifted into the hearse. This has been actually proved in a most ghastly manner in several curious cases, most notably in Frederick the Great's attempt to kidnap a Scotch carpenter, of gigantic stature, for his celebrated Grenadier Guards. The man was entrapped by being given an order for a coffin for a fictitious individual, several inches shorter than himself. When completed it was declared too small, and the carpenter was induced to lie down in it himself, to show that it was even larger than ordered. He was at once overpowered, the lid nailed down, and the coffin carried rapidly to a deserted house, where it was opened only to find that the poor fellow was asphyxiated, although he had been confined in the box for but a short time.

A WEAK SPOT IN THE VEGETARIAN ARGUMENT.

The *Fortnightly Review*, while it is willing to admit that diet may have more or less influence upon character, points out that mildness, gentleness and kindred virtues are by no means universal among those races which abstain from animal food. "Vegetarians are prone to contrast the gentleness of our domesticated herbivoræ with the ferocity often displayed by carnivorous animals. A little reflection, however, evidences that food cannot be the main cause of disposition in either." Many of the herbivoræ are capable of displaying the most fiendish ferocity—savage attacks upon inoffensive persons by bulls, rams, stags and horses are by no means rare,

and in the Orient *rogue* elephants, wild boars and other herbivorous creatures often "inflict serious injury on human beings who chance to come in their way." So likewise the ordinary wild Hindu or Celestial, feeding on rice or wheat flour, is liable to become "riotous, uncontrollable, and bloodthirsty, when influenced by religious fanaticism."

It then appears that the mischievous effects upon the habits and disposition ascribed to animal food are due almost wholly to other causes, not the least among which are religious bigotry and racial characteristics; it is possible, however, that alcohol, opium and other narcotics may be essential factors. The conclusion, upon the whole, is that the disposition of the average man is not apt to be altered for either better or worse by the substitution of an exclusive vegetable diet for his ordinary fare, except in so far as he may be influenced by the changes brought about in general health.

DIRTY THERMOMETERS.

The *Medical Record* declares "those who are constantly preaching the germ cause of disease are the very fellows who are many times as careless as their unbelieving friends."

How frequently we see physicians take the temperature of their patients, regardless of existing disease, wipe the instrument with their handkerchief—an article most likely to be full of germs—or a towel, or even use the corner of a sheet, then carefully place it away in a case holding a small amount of absorbent cotton to keep it from breaking, which latter is specially apt to preserve germs ready to be conveyed to the next unfortunate upon whom the thermometer may be used.

This we have observed as a common everyday occurrence with a prominent medical man—one who is a most violent upholder of the germ theory. It is safe to say he has not washed his thermometer since it was purchased, and although he suffers from a chronic catarrhal difficulty he always applies his handkerchief to the thermometer both before and after inserting it into the patient's mouth.

Another of the ablest men of the profession is equally at fault, and, while not so

rabidly an upholder of the germ theory as the first, is nevertheless a believer therein; he treats his thermometer in precisely the same way. More, the instruments he uses in his office are always dirty, unless they happen to be cleaned by a peripatetic assistant. Frequently he lances an abscess, and the bistoury receives no other cleansing than mere wiping upon his handkerchief or any convenient piece of paper or absorbent cotton. Moreover, his instruments, besides being dirty, are always rusty.

It seems as if the very filthiness of some men made their popularity as practitioners.

RUPTURED HEART.

Such lesion was found in an autopsy upon Erastus S. Foster, a New York broker, who dropped dead while calling on some friends, after overloading his stomach at dinner. The rupture was about an inch long, extending to the pericardium, which was bruised by the strain but not separated. The state of Mr. Foster's health was such that his physician had forbidden the exercise which preceded his death.

THE MEDICAL AGE has before called attention to the fact this lesion is perhaps more common than supposed, and occurs in lower animals as a result of shock. A ruptured heart caused the death of a horse in Scotland, on the animal viewing a railway engine for the first time. A large number of the hares (*Lepus sylvestris*) found in market present the same phenomenon.

EDITORIAL NOTES.

Malingering in Children.—

The medical officer of health in Northamptonshire, England, was asked to examine a number of children who had suddenly been attacked with a strange vesicular eruption that in some instances developed blisters as large as a half-crown. It was found the sufferers, in order to stay away from school, had rubbed their hands and arms with the juice of the plant called *Patty spurge*.

The *Lancet* remarks that as the children appear to be studying the physiological effect of plants, a closer knowledge of the birch

tree and its branches might possibly divert their energies into another channel, or at any rate dull their keenness for practical botany.

Chinese Opium-smoking.—

In *Annales de Chimie et de Physique*, M. Moissan declares the Celestial does not smoke crude opium, but a preparation known as *Chandu*, which, when heated to about 250°, produces a smoke formed of volatile odors and a small quantity of morphine. This appears to produce no more ill-effects than tobacco-smoking. The commercial quality of *Chandu* as an opium, however, is very low; and the residues that remain after smoking, when treated to a temperature of above 300°, give off various toxic compounds.

The Vivarium.—

This is the title of a new publication issued under the auspices of the Reptilian Society, and edited by the Secretary, at Rand Rectory, Wragby, Lincolnshire, England. It is intended to bring together the opinions of persons interested in reptiles, and also to educate people to a kinder feeling toward these interesting creatures.

We wish this publication all the success in the world; its object is a laudable one, and its contents will be of both general and scientific interest.

Sarsaparilla Delusion.—

There is not a single tangible fact to show that sarsaparilla has any therapeutic properties whatever; no one has been able to show that the drug has produced any appreciable physiological effects. In spite of this fact, however, "sarsaparillas" appear to be popular remedies. A recent analysis of goods of this class shows that they depend for their popularity chiefly upon iodide of potassium and a large content of alcohol, which latter often reaches a percentage of twenty-six or more.

Good!—

The Duluth Gas and Water Company has been indicted for manslaughter in having caused the death of Harry W. Smith by typhoid fever, alleged to have been contracted from water delivered through the mains. Their franchise specifies they shall

furnish *pure water*. The outcome of the case will be interesting, as it will also apply to the responsibility of municipalities in like situations.

Function of the Prostate.—

C. Mansel Moulin, in the *Journal of Anatomy and Physiology*, revives the old doctrine that the prostate has nothing to do with micturition and has only secondary connection with the urethra. He claims that its function is to add certain constituents to the seminal fluid which serve to arouse and maintain the vitality of the spermatozoa.

Precocious Pregnancy.—

In a recent number of the *American Journal of the Medical Sciences* is reported the birth of a living child weighing five pounds, from a mother ten years and two months of age. The labor was uneventful. The mother had menstruated regularly since the age of five years, but evinced no other signs of development.

Scopolamine.—

This is the revised official title in the German Pharmacopœia for hyoscine, and correctly indicates the source (*Scopolia atropoides*) of the alkaloid. The same change will no doubt be made when the U. S. Pharmacopœia is revised again.

A Royal Name.—

Our Canadian exchanges note that Doctor James Third has been appointed superintendent of the Kingston General Hospital.

It would be interesting to learn how this name originated.

Ovarian Neuralgia.—

As a rule, nothing controls ovarian pain so successfully and satisfactorily as gelsemium; not even the narcotics are excepted.

Ancient Prescription.—

The *Homœopathic Recorder* says the oldest medical prescription is that of a hair tonic written B.C. 4000.

That's All.—

"Man wants but little here below."

Only the earth.

Items and News.

Scientific Foolishness.—

There are scientific men, it is said, who are convinced that "it is not inherently absurd to believe that a hollow rubber ball with no opening in it may be turned inside out without breaking it; that a man may escape from a doorless and windowless room without passing through the walls; that a knot may be untied while the ends of the string are held; and that hosts of other apparently impossible things may be done."

Men have been sent to lunatic asylums for less than this, yet it is undoubtedly a fact that these inconceivable absurdities are put forward as deductions from mathematics—supposedly the only science in which absolute certainty is possible. "The fourth dimension" is gravely discussed by mathematicians, and one of the current scientific "libraries" has a treatise on it written by a senior wrangler of Cambridge.

Such conclusions are not put forward hurriedly. They are the result of profound study and the most intense application of which the human mind is capable. Being so, they show the great danger there is in allowing the mind to become completely specialized. The man who studies a single subject until he loses sight of everything else, is always in danger of parting with his judgment. When he does that, when he is entirely wrapped up in a single idea, he almost inevitably develops what unspecialized people call crankiness.—*The World* (New York).

The Tree-killer.—

One of the curious forest growths of the Isthmus of Panama and lower Central America in general is the vine known as Matapalo, or "tree-killer." This vine starts in life as a climber upon the trunks of the large trees, and owing to its marvellously rapid growth soon reaches the lower branches. At this point it first begins to put out its "feelers"—tender, harmless-looking shoots, which soon reach the ground and become as firmly fixed as the parent stem. These hundreds of additional sap tubers give the whole vine a renewed lease of life, and it begins to send out its aerial tendrils in all directions. These entwine themselves tightly around every limb of the tree, even creeping to the very foremost tips and squeezing the life out of both bark and leaf. Things go on at this rate but a short time before the forest giant is compelled to succumb to the gigantic parasite which saps its life-blood. In a very few years

the tree rots and falls away, leaving the Matapalo standing erect and hollow, and like a monster fish lying upon its back with its horrid tentacles clasped together high in the air. Core-like arbors of Matapalo are to be seen in all directions, each testifying to the lingering death of some sylvan giant that formerly supported it.—*The Eclectic Magazine*.

He Knew English.—

At the business ports of China it is customary for the Europeans to issue what is called an "express"—i. e., a special bill printed and delivered quickly by hand, announcing the arrival of any special goods, etc., as a means of advertisement. Our friend John Chinaman, at Canton, not to be outdone in this style, issued the following highly amusing epistle as an "express" last month:

FOR SALE.

Best Peppermint Oil Made From Its Really Leafs.

Can Be Curable For the Sicknesses of Male, Female or Boy.

Dizzy.—Use to put or wipe few drops on the forehead, both sides under eyebrows, noseholes and both sides of the back of ears.

Fever.—Wipe on the forehead and noseholes.

Fit.—Wipe most to the noseholes, and drink few drops mixed with tea.

Giddy.—Wipe both sides of forehead and noseholes.

Gout or Goutswollen.—Wipe both sides of forehead, noseholes and much to the breast.

Headache.—Wipe on the forehead and noseholes. Believe us.

CHOW THOONG SUNG,
Tai-pin Gate, Outside Brass Smith Road, Canton.

—*London Tit-Bits*.

Turkish Baths and Morality.—

According to the *American Medico-Surgical Bulletin* the employés of certain Turkish-bath houses in New York are engaged in the not unprofitable industry of teaching women patrons how to "sin and yet not conceive." So-called anti-conception suppositories are retailed to credulous patrons at exorbitant rates, when the chances are that the chief if not the only ingredient is a little boric acid; furthermore, in this question of conception there are many slips "twixt the cup and the lip," since women conceive, notwithstanding the use of these agents, harmless or the reverse. In other words, not alone is the woman taught to use agents which may harm her or her mate, but the sale partakes of an element of fraud, since, like many another so-called cure, it is such only in name. The price charged for these suppositories is three dollars a dozen, and the probabilities

are that not one effective spermatozoön will be killed by the whole dozen.—*Medical Standard*.

"Where Are We At?"—

Amid so much prescribing of the proprietary class and the germ-killing class at random, is it not time for the scientific, inquiring mind to call a halt and ask, "Where are we at?" If the therapist of to-day cannot show strides of advancement equaling those of surgery, pathology, and ætiology, he should at least pause and survey the field, and perhaps will go back and take up the study of the physiological action of drugs where such men as Bartholow, H. C. Wood and Sidney Ringer have halted. Let us commence here for advancement and forever quit blindly following the "germ-killers" and proprietary corporations into darkness so far that we do not know "where we are at."—*Southwestern Medical Record*.

Truly Tipperarian.—

An amusing episode took place recently in the Boorisokane (Tipperary) dispensary. A pauper patient, being dissatisfied with her medicine, began to vent abuse upon the medical officer, so he ordered her out. As she would not go, he went to find a porter, whereupon she locked herself up in the pharmacy and occupied herself until the door could be broken open in mixing the contents of all the bottles. Before she could be removed she had perpetrated damages to the amount of about \$250.—*Medical Press and Circular*.

Porous Glass for Windows.—

The latest hygienic idea is the use of porous glass for windows. This is declared to possess all the advantages of the ordinary window-framing, and, while light is admitted as freely as through the medium of common glass, the "porous" further admits air too, the minute holes being too fine to permit of any draught, while they provide a healthy continuous ventilation through the apartment.—*The Hospital*.

Infantine Ills.—

Much of the awful mortality during infantile life is due to artificial conditions which could be eliminated simply by the exercise of common sense. These conditions must be regarded as predisposing causes, and the most common as well as the most potent are irrational care, improper feeding, and that irrepressible pestilence that stalketh at all hours—the purveyor of free medical advice.—*Medical and Surgical Reporter*.

Horseflesh in Paris.—

The Ministry of Agriculture gives the number of horses killed as food during 1895, and exclusive of forty-three mules and 383 donkeys, as a total of 23,186, with a total weight of 5130 tons, at a maximum price of eighteen cents per pound. The report adds that not more than a third of the meat is sold at the stalls, the balance being utilized for the manufacture of sausages.—*Scientific American*.

An Honest Doctor.—

A woman went to a physician to obtain a remedy for her husband's rheumatism. The doctor wrote a prescription, saying: "Get that prepared at the drug store, and rub it well into your husband's back. If it does any good, come and tell me; I have a touch of rheumatism myself."—*Exchange*.

A Happy Suggestion.—

If the Greek, Latin and Arabic tongues should become exhausted in furnishing new chemical names to German anilin chemists, their attention might be directed to the idiom of the Boncudus of South America or of the inner tribes of "darkest Africa."—*Medical Standard*.

Is This True?—

It has been recently stated, upon apparently good authority, that a child born at seven months has a better chance of living than if born at eight months. If this is true, there are those who would like to know it and why it is so.—*Medical Council*.

A Centenarian.—

Mrs. Hannah Cuddeback, reputed to have been the oldest woman in Ohio, died recently in Vermillion at the age of one hundred and five years, six months.

Doubtless.—

Orator: "Take away woman and what would follow?"

Man in back of audience: "We would."—*Tidbits*.

Suggestive Aphorism.—

Repentance is the last profit, sometimes the greatest, we draw from our faults.—*DUMAS*.

Fatality from Chloroform.—

Fear is one of the first if not the principal of the causes of fatality.

Book Reviews.

THE ENTAIL; OR, THE LAIRDS OF GRIPPY. By John Galt. Two volumes. Cloth; 12mo; pp. 356 and 320. Price, \$2.50.

We are indebted to Mr. S. R. Crockett for these two volumes, the productions of an author who has been almost forgotten outside of Ayrshire and Scotland. That they have a local coloring detracts in no way from their merit. The title, "Lairds of Grippy," is completely descriptive. The work is not a novel of the unities, though it requires both a memory and a genealogical mind to keep track of all the branches and intermarriages of the families of Grippy and Kittlestoneheugh. It is to a great extent historical, and the kindly Scottish heart of Galt, warm like Ayrshire sunshine, keeps the reader content without the modern kickshaw writing and exaggerated mawkish sentiment that is the type of the latest novel.

Indeed, *The Lairds of Grippy* is a good, solid, old-fashioned Scotch novel, interesting from beginning to end, and fit for the eyes of both young and old. It embodies series of character sketches such as have never been surpassed, even by Sir Walter himself. Indeed, the "Wizard of the North" deemed this work the finest piece of literature of his day. We cannot too highly recommend the work to all lovers of Scottish literature, and only regret we have not the space at our command to give an outline of the plot; it is especially to be commended for the clear insight it gives into the customs of a century ago, and of the old Scottish tongue that until recently bade fair to speedily become extinct.

THE ROYAL NATURAL HISTORY. Edited by Richard Lydekker, B.A., F.R.S., F.Z.S. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

The issue of February 15th, which is No. 2 of Volume IV, continues the *Picarians*—loriquets, cockatoos, parrots, American sharp-tailed parrots, macaws, conures, love-birds, paraquets, and owl-parrots. Next are treated the Owls and Ospreys—wood owls, eared owls, hawk and fish owls. Chapter XII opens with the diurnal birds of prey, or Accipitrines, which are continued in the next number (No. 3, Volume IV). These embrace the falcons, kestrels, kites, sea-eagles, hawk-eagles, harpies, sparrow-hawks, goshawks, and vultures. Chapter XIII deals with the Cormorants, which embrace not only the cormorants proper, but also the darters, gannets, pelicans, frigate and tropic birds.

The issue of March 15th (Volume IV, No. 4) takes up the herons, storks, ibises, flamingoes, swans, ducks, and screamers; it also gives the first installment of the *Columbinæ* or Pigeon family. The green, painted, fruit, wart, nutmeg, wood, long-tailed, Galapagos and cuckoo pigeons are described; also the rock, moaning, white-winged, turtle, blood-breasted, wanga-wanga, blue-bearded,

Cuban, Cape, African, ground, bronze-winged, Australian, harlequin, and penciled doves. The illustrations in oils, each and every one of which is a work of art, represent the Florican and MacQueen bustard, the mallard duck, golden eagle, macaws, night heron and boatbill, frigate and tropic birds.

ETIDORHPA. By John Uri Lloyd. Cloth; 8vo; pp. 509. Robert Clark & Co., Cincinnati.

Some time since a copy of the author's edition was received, review of which has been delayed in order that the work might be carefully perused. In the meantime a second edition has been issued by Robert Clark & Co., which of itself is sufficient evidence of how the volume has seized upon the public at large, and of the demand that has been created for it.

It purports to be a strange history of a mysterious being who took a journey as remarkable as Dante's famous visit to Pluto's domain. It may be described as, in a measure, a work of philosophic fiction embodying a host of scientific truths and many bold theories, at the same time advancing ingenious speculations regarding Nature and the destiny of man. In fact, it is a marvellous presentation of occult teachings under the guise of fiction, being at once interesting, amusing, weird, and fascinating. So strange a volume is it, that it leaves the reader in doubt oftentimes as to where experience and practical knowledge cease and imagination begins. One of the most astonishing of the author's flights is a description of the drunkard's purgatory. Again, the hero of the story poses in the guise of Morgan, who years ago is said to have mysteriously disappeared in consequence of his violation of the secrets of the Masonic craft. The book is beautifully illustrated and as attractive to the eye as its contents are to the mind.

PERSONAL REMEMBRANCES AND RECOLLECTIONS OF FORTY-SIX YEARS' MEMBERSHIP IN THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA AND RESIDENCE IN THE CITY OF WASHINGTON. By Samuel C. Busey, M.D., LL.D. Cloth; 8vo; pp. 373. Published by the Author, Washington.

It is rarely our opportunity to peruse so interesting a volume. Doctor Busey has confined himself to verified facts, and delineates in many respects the characteristics of many members of the profession who were well known features thereof a quarter of a century ago. The book is in no sense an autobiography, but a collection of personal reminiscences, with personal references only such as seem necessary to set forth distinctly and definitely incidents and circumstances with which the author was actively associated.

Especially interesting are Doctor Busey's remembrances of his student life at the University of Pennsylvania under the teaching of such men as George B. Wood, Joseph Warrington, William E. Horner, William Gibson, Hugh L. Hodge, William Pepper,

G. W. Norris, W. W. Gerhard, E. Peace, John J. Reese, Ellwood Wilson, *et al.* Incidentally are mentioned a number of the author's associations and acquaintances in the American Medical Association, and the reader will find himself becoming posted as to the history of the Medical Society of the District of Columbia, and the many ups and downs which such organizations usually pass through.

A SAVAGE OF CIVILIZATION. Anonymous. Cloth; 12mo; pp. 355. Price, \$1.00. J. Selwin Tait & Sons, New York.

This work deals with labor troubles and other problems of sociology. John Roberts, a young artisan, living with his mother, whom he believes to be a widow, suddenly discovers he is illegitimate—his father being a wealthy manufacturer in a distant city. In the pursuit of revenge for the wrong done himself and his mother, he obtains employment in the works belonging to his father and soon drifts into the society of the anarchists, becoming a member of their body. A strike occurs, rendered lurid by riot and injury to property, during which young Roberts, who bears a prominent part among the strikers, succeeds in destroying two factories and killing his father's legitimate son, who is a member of a militia regiment. He is himself killed while resisting arrest.

The plot well illustrates the evils of revenge, of trade-unionism and its attendant strikes—measures which work greatest harm to those who are not directly interested in the quarrels of labor or capital. We could wish every member of a labor union and every individual who sympathizes with strikes and anarchical theories would read this book and learn the lesson that is here taught, viz., that the doing of wrong to right another wrong is contrary to all principles of honesty or justice.

A TEXT-BOOK OF MATERIA MEDICA, PHARMACOLOGY, AND THERAPEUTICS. By I. J. M. Goss, A.M., M.D. Cloth; 8vo; pp. 586. Price, \$5.00. W. T. Keener, Chicago.

This is the second edition of a work dedicated "to the scientific, liberal-minded physicians of the United States who are laboring to attain greater certainty in the healing art," etc. The author moreover believes that the shackles that have hitherto retarded therapeutic advancement are being loosened and that ere long *pathies* and *isms* will be relegated to the past. This is the spirit in which this volume is written; further, too much cannot be said for it in that it deals concisely though thoroughly with all the valuable agents of the materia medica, both official and non-official. Doctor Goss, though an eclectic, is broad and liberal, and this treatise consequently is possessed of a value that accrues to no other extant in that it gives an insight into eclectic therapeutics that has never before been afforded, and moreover is a complete epitome of the same from the standpoint

of other schools. We have not seen a work on therapeutics in many years which is so completely up to date in the line of rational therapeutics, or which so completely elaborates many obscure and mooted points. It is a most valuable reference and text book, and is moreover in no sense a compilation, but original.

AMERICAN TEXT-BOOK OF THE THEORY AND PRACTICE OF MEDICINE. Volume II. Edited by William Pepper, M.D., LL.D. Cloth; imperial 8vo; pp. 1046. Price, \$5.00. W. B. Saunders, Philadelphia.

The first volume of this treatise has already been reviewed in these columns. The second volume evidences that the excellences of its predecessor have been well sustained. Doctor Welch writes on bacteria, infection, and immunity; Doctor Lyman on diathetic disease, acid dyscrasia, osteomalacia, obesity, biliary lithiasis, gravel, diabetes, polyuria, rheumatoid arthritis, gout, and rheumatism; Doctor Osler upon blood, adrenals, and ductless glands; Doctor Pepper on the heart and large vessels, the mediastinum, mouth, tongue, salivary glands, pharynx, tonsils, œsophagus, stomach, and intestines; Doctor J. C. Wilson on the nose, larynx, bronchi, and pleura; Doctor Delafield on the lungs and kidneys; Doctor Holland on uranalysis; Doctor Fitz on the peritoneum, liver, and pancreas.

This work is practically a series of monographs, and presents a medium between a student's textbook and an elaborate system of medicine—a work that has advantages and disadvantages, though the latter are greatly overshadowed by the former. The text has been carefully edited so as to bring our knowledge down practically to the hour of publication.

AN ATLAS OF THE NORMAL AND PATHOLOGICAL NERVOUS SYSTEM. By Christfield Jakob. Cloth; 12mo; pp. 232. Price, \$3.50. William Wood & Co., New York.

This is No. 2 of Wood's Medical Hand Atlases, a very valuable set to be complete in five numbers, the price of which (per set) is \$15.00.

This particular issue portrays an important chapter in medicine which usually remains, for the majority of students and physicians of all classes, foreign and unenjoyable. Normal and physiological anatomy is carefully and correctly outlined, and the endeavor is made to render easy of comprehension clinical features as seen at the bedside, and the processes on which such depend; also to make it possible for the practical physician, who has heretofore stood aloof from this subject, to understand the meaning of the most important recently developed facts in neurology.

The introduction is by Doctor A. von Strumpell. Doctor Joseph Collins is translator and editor of the volume, of which as a whole we cannot speak too highly; the illustrations, colored from life, are ample, numerous, and complete in all details.

Such a hand-book has long been a desideratum, and it is a marvel that Doctor Jakob has been able to so fully and concisely supply the demand.

DEMON-POSSESSION AND ALLIED THEMES. By J. L. Nevius, D.D. Cloth; 12mo; pp. 482. Price, \$1.50. Fleming H. Revell Co., Chicago.

The investigations of the author have led him to accept the view of the Chinese, that the body may under certain conditions be taken possession of by demons or devils—which accords to a certain degree with claims that have been made in the literature of psychiatry. The apologist for the author, who writes the preface, claims that "judicial fairness of mind and conscientious thoroughness admirably qualify him for the task," while his intimate sympathy with the Chinese people and correspondingly truer interpretation of their innermost thoughts and life render him more capable of ascertaining the real facts in a given case and of forming accurate judgments thereupon. Doctor Nevius insists that he has found in the Flowery Kingdom a large number of cases of true demon-possession paralleling those in the New Testament. Thus the work appears a good deal as an argument for returning to the superstition of Mediævalism. However, though it will do harm to christianity, in the interests of which it is professedly written, it will prove of interest to the alienist and student of psychic phenomena.

POPULAR HISTORY OF ANIMALS, FOR YOUNG PEOPLE. By Henry Scherren, F.Z.S. Cloth; 8vo; pp. 400. Price, \$3.00. J. B. Lippincott Co., Philadelphia.

The title is a misnomer, for it is as much a history for grown people as for youth, and is by long odds the best work of its kind that has appeared during the last half-century. The author has not only culled judiciously from many sources, and illustrated his pages with excellent taste, but has avoided the rubbish that is found in the majority of books of this class, and has been able to blend correct scientific information with an interest that never flags from the initial chapter to finis. Any person desiring a correct insight into the subject of wild life in all its varied forms cannot do better than to seek it within the covers of this volume.

Withal the work is beautifully illustrated, there being, besides a wealth of wood-cuts, fourteen colored plates. The general outlines of natural classification are followed, but technicalities in the matter of names and descriptions are avoided, consequently it becomes not only a book for pastime, but likewise one for education.

DISEASES OF INFANCY AND CHILDHOOD. By J. Lewis Smith, M.D. Cloth; 8vo; pp. 983. Price, \$4.50. Lea Brothers & Co., New York and Philadelphia.

The profession will be pleased that a new edition of this standard text-book has been issued. The department it covers is one of the most im-

portant of specialties, owing to the peculiarities pertaining to the affections to which children are liable; the clinical differences to be observed in the diagnosis and treatment of the same maladies affecting both the young and the adult are innumerable.

This is the eighth edition, and there is hardly a physician from Maine to Texas who is not familiar with the work. It is perhaps needless to remark that the medical portion has been revised, and this revision has required a fivefold increase in the number of illustrations and the addition of upwards of 100 pages of text. Altogether there are 273 illustrations, exclusive of four full-page plates.

SIXTEENTH ANNUAL REPORT OF THE U. S. GEOLOGICAL SURVEY, 1894-95. Edited by Charles D. Wolcott. Cloth; imperial 8vo; pp. 736. Government Printing Office, Washington.

This is Part Four of the Mineral Resources of the United States, and deals with non-metallic products. It treats of the production of coal, coke, peat, petroleum, natural gas, asphaltum, sandstone, limestone, granite, marble, slate, soapstone, magnesite, clay, cement, buhr stones, grindstones, oilstones, whetstones, corundum and emery, infusorial earths, garnet, tripoli, precious stones, fertilizers, sulphur, pyrites, salt, fluorspar, mica, gypsum, monazite, mineral paints, barytes, asbestos, and mineral waters. As a work of reference this volume must necessarily be of great value.

THE WOODLANDS. By Thomas Hardy. Paper; 12mo; pp. 354. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 235 of the Globe Library, and one of the very best works by one of the ablest authors of the nineteenth century. The work is one that to review would require more space than is at our disposal. We cordially recommend it, however, to every reader, with the assurance that once begun it will not be willingly laid down until finished.

STANHOPE OF CHESTER. By Percy Andrae. Paper; 12mo; pp. 285. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 233 of the Globe Library, and an exceedingly curious ghost story, presented in such a way that it seems almost impossible to doubt its reality. It also has an interesting bearing upon modern psychology and occultism.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

The May issue is both novel and interesting. Colonel H. Ward writes of "Deer Hawking in India;" J. F. Sullivan of "The Light Infantry of the Hunting Field;" Lord Delamere of "Lion Shooting;" Lord Ribblesdale of "Hunting in

France;" F. G. Atalo of "Mixed Days in Australia;" Colonel H. Wylie of "Elephant Hunting in Nepal;" Reginald Lucas of "The Upper Club;" Mrs. MacKern of "Golf for Women." "The Derby" and "Notes by Rapier" are by the editor, Alfred E. T. Watson. The illustrations of this number are by A. Thorburn, J. F. Sullivan, Stanley Berkeley, G. H. Jalland, E. Caldwell, and Lucien Davis. The *Badminton* is by long odds the nicest and cleanest magazine published; furthermore, it has not dabbled in the X rays or meddled with medical topics, which seem to be the latest fads in general literature.

DONAHOE'S MAGAZINE. Price, 25 cents; \$3.00 per year. Donahoe's Magazine Co., Boston.

The leading paper for May is "A Discussion of the Issues of the Approaching Presidential Campaign," by W. J. Bryan. "The Character and Abilities of Archbishop Ryan" are analyzed by Reverend John Talbot Smith. Bernard Morgan writes of "The Spirit of Frederick Leighton." "Lights and Shades of Life Insurance" is by John C. Linehan; "Mexican Rambles," by Arthur Inkersley. "Shakespeare's Authorship and Religion" are discussed by Ignatius Donnelly and Reverend John Conway. "The End of Annie's Love Story" is by Sarah T. Smith; "The Clancartys," by Edith M. Norris; "Jonquille," by Mary C. Todd. There are also other papers of interest and the usual poetry and departments.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Co., Minneapolis.

The May number contains: "The Genus *Temnocyon* and a New Species Thereof, and the New Genus *Hypotemnodon*, from the John Day Miocene of Oregon," by John Eyerma; "Early Pleistocene Deposits of Northern Illinois," by Oscar H. Hershey; "On a Supposed Discovery of the Antennae of Trilobites by Linnaeus in 1759," by C. E. Beecher; "The Deposition of Gold in South Africa," by H. V. Winchell; "Minerals and the Roentgen Rays," by W. G. Miller; "Review of Recent Geological Literature;" "Recent Publications;" "Correspondence;" "Personal and Scientific Notes."

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

Contents for May are: "Amateur House Decoration," by Charlotte Whitcomb; "Home Work for Amateurs," by P. A. Schwarzenbach; "Household Hints and Helps," by Hester M. Poole; "Remodeling the Commonplace Home," by Edward L. Young; "Spring and Summer Draperies," by Ellen Drew; "The Entrance Hall in the Modern Home," by James Thomson; "Decorative Don'ts," by Mrs. Oliver Belle Bunce; "The Home of Mrs. Ole Bull," by Elizabeth Walling; "Some Useful Furniture Novelties," by Webb Donnell.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Co., Boston.

The May number contains: "The Ubiquitous Tin Can," by F. N. Barrett; "Light Housekeeping in

the City," by Jane M. Slocum; "Industrial Education of Women in Germany," by Edward S. Joynes; "The Farm Kitchen," by Mary E. Millar; "Experiments with Baking Powder," by Angeline M. Weaver; "Profit and Pleasure from Summer Boarders," by Adelaide Shattuck; "The Children's Table," by Mrs. W. V. Kellen; "A Short Course in Cookery" (IV), by Anna Barrows. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the May issue is "An Impending Sword," by H. A. Vachell. W. C. Elam writes of "The Last Duels in America;" C. H. New of "Highways of the Sea;" Isabel F. Hapgood of "Bed and Board in Russia;" C. B. Morgan of "From the Valley of the Shadder;" Theodore Stanton of "Official Residences for American Diplomats;" Clara E. Laughlin of "Love in the Afternoon;" and Allen Hendricks of "The Abbey of Gethsemane."

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

Contents of number for May 9th, 1896: "Labor and What it is Doing;" "Editorial Notes and Comments;" "Notes upon the Architecture of China;" "Injury to a Washington Relic;" "In Streets and Papers;" "Architrave on the Parthenon;" "Failure of Buildings"—II; "Legal Notes;" "Millennial Exhibition at Budapest;" "The Modern Flat;" "Societies;" "National Electrical Exposition;" "Personal;" "Current Notes;" "Industrial Progress."

METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.00 per year. Metaphysical Publishing Co., New York.

The May issue is more than ordinarily interesting. Charles Johnson writes of "Three Kinds of Karma;" Franz Hartmann of "The Correlation of Spiritual Forces;" Henry Wood of "Salvation;" Madam Frances Higgins-Glenerne of "Genius;" M. D. Ward of "The Symbolism of Twelve;" A. T. Sibbald of "The Kivigtoks of Greenland." There are the usual departments.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. Edited by Doctor George T. Stevens. Transatlantic Publishing Co., New York.

The February 1896 number contains: "The Diagnostic Value of Functional Examinations of the Eye," by Wolffberg; "Problems in the Correction of Corneal Astigmatism," by F. Roure; "Handling Epiphora," by J. H. Woodward; "Reports of Societies;" "Reviews of Ophthalmological Journals;" "Book Notices;" "Miscellany."

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. Anthropological Society, Washington.

The issue for May contains a paper on "The Prehistoric Culture of Tusayan," by J. Walter Fewkes, and one on "Left-handedness in American Aboriginal Art," by D. G. Brinton. There are the usual Notes and News and Bibliographical Literature.

Therapeutic Brevities.

Sea Air in Diseases of Children.—Leroux argues that sea air should not be indiscriminately advised for children, inasmuch as it is apt to have an injurious effect in cases of heart disease and hereditary syphilis. It is of use in anæmia, except in the rheumatic or neurotic; as a rule, is of advantage in lymphatic children, but not in those who are highly irritable or liable to inflammatory complications. Scrofulous children suffering from chronic inflammatory complications, chronic conjunctivitis or otorrhœa, hyperplasia of the tonsils, or chronic cutaneous affections, should be sent to the sea-side, unless it is known they are liable to acute inflammatory exacerbations. On the other hand, weeping eczema, acute impetigo, pruriginous skin affections, and acute painful ear disease, are contra-indications. Children suffering from chronic tuberculosis of bones or glands do well at the sea-side, unless there is copious suppuration. Pulmonary tuberculosis is always a contra-indication, and the propriety of sending children with enlarged abdominal or thoracic glands is very much open to question. As a rule, lupus does not do well. Rickets, if the children are sent at an early stage of the disease, is cured by continuous residence at the sea-side for a year or more.—*The Practitioner*.

Fistula in Ano.—Operate upon all cases where there is sufficient vitality to heal the wound—always divide the fibrous membrane at the bottom of the tract, and pack the wound for the purpose of healing with granulation: Always open abscesses early to prevent fistula in ano; when operating in a tuberculous patient, give him the benefit of the doubt: Never fail to examine thoroughly for small branches leading out from the main tract, and examine for an associated stricture which may be the cause of the fistulous tract: Never cut the sphincter but once in any operation, and beware and warn the patient of the danger of incontinence: Confine the patient in bed, and do not trust his care exclusively to a nurse—tubercular cases are an exception in that they demand moderate exercise and fresh air: Physiological rest is the first principle for the relief of all diseases: In all operations involving the rectum it is good surgery to dilate the sphincter: All cases of fistula in ano should be operated upon preferably by the knife, except where Bright's disease, cancer, cardiac or hepatic disease exists.—B. B. PORTER, in *American Journal of the Medical Sciences*.

Coal Oil as a Medicament.—Kerosene is efficient in intercostal neuralgia, diphtheria, catarrh, fermentative dyspepsia, myalgias, sprains and bruises, bites of poisonous insects, colds, bronchitis, pneumonia, colic, salivation, vaginitis; it is noticeable in the urine one hour after ingested, and likewise in the perspiration and alvine excretions. It is sure death to pediculi and all kinds of parasites, internal and external. I employ twenty minims of kerosene with one minim of oil of cloves in capsule, giving one every three hours—these are put up in soft elastic capsules for me by Parke, Davis & Co. Administered in a case of incipient phthisis, the fever disappeared, tongue became clean, appetite was restored, strength improved, weight increased, cough decreased, sleep much improved, night sweats disappeared. Briefly, coal oil is an antiseptic internally and externally; an insecticide and germicide; a stimulant; a counter-irritant internally; it is cheap; it is not made "in Germany."—DOCTOR BRITTON, in *Cincinnati Medical Journal*.

Otitis.—After the acute symptoms have subsided, certain measures directed towards checking the discharge may seem necessary. It must be remembered that under no condition should any attempt be made to diminish the quantity until the temperature becomes normal and all pain has disappeared. In a large proportion of cases where spontaneous rupture of the drum membrane has taken place, if the parts are kept carefully cleansed, the discharge will cease spontaneously. The use of astringent instillations cannot be recommended. In cases where the discharge persists, it is perfectly safe to use a saturated solution of boric acid in alcohol as an instillation, after syringing; a few drops of this may be employed with perfect safety, and will usually be found sufficient to stop the discharge. The objection to solutions of sulphate of zinc and other kindred instillations is that they form an excellent nidus for the development of vegetable parasites.—DENCH, in *Archives of Pediatrics*.

The Vaginal Route for Abdominal Operations.—The operation is made in the posterior vagina only, as in vaginal hysterectomy. The peritoneal cavity is boldly entered, adhesions broken up, the uterus forced into position and retained by a tampon of iodoform gauze introduced through the opening well up into the cavity, which tampon is allowed to remain *in situ* for a week or ten days if no symptoms of infection occur. An exudation is thrown out back of the gauze tampon which acts as

a permanent prop to the uterus. Before the tampon is introduced, if the patient is placed in the Trendelenburg position and Pean retractors are introduced, the ovaries can be brought down for inspection and dealt with as the condition may demand. The advantages are: It is not dangerous to life: It is followed by little or no suffering: Recovery is rapid: No raw surfaces are left in the abdominal cavity to cause adhesions.—L. C. HALL, in *Kansas Medical Index*.

Inflammation of Middle Ear.—Doctor Okuniff employs trichloroacetic acid. In thirty-eight cases there was an arrest of the otorrhœa, in two a decided diminution of the discharge, and in twenty-three a cicatrization of the perforation. The remedy was used in an accidental and irregular manner, and he thinks the results would have been still better had it been applied according to a systematic method. He is likewise convinced that with time and patience one may always by its assistance obtain a complete cure of chronic otorrhœa, with re-establishment of hearing. The course of suppuration may be rapidly arrested, the offensive odor removed, and the regenerative power of the tissue of the membrana tympani may be awakened to repair the perforation and re-establish normal audition.—*Revue de Laryngologie et Otologie*.

Veratrum in Eclampsia.—There is no drug, with the possible exception of chloroform, that is of so much value in eclampsia as *veratrum viride*. Obstetricians in general are less forgetful of the virtues of this drug than its comparative inconspicuousness in current literature might lead one to suppose.—EDGAR, in *New York Medical Journal*.

As an anti-convulsive I invariably administer *veratrum* hypodermatically and in heroic doses. Ordinarily the usual dose should be at least ten minims, and repeated within an hour if powerful sedation is not obtained and the pulse brought down to 60 or less a minute. I sometimes add morphine if it is especially indicated.—*New York State Medical Reporter*.

Puerperal Sepsis.—The most modern treatment of general septicæmia is that of hypodermatic injections of creosote, recommended by Frank, of Cologne, Germany. This method has been employed by Mehrtens, of Dusseldorf, in a case of puerperal sepsis, with remarkable results, the temperature falling from 104° to normal after the injection. A rise on the next day to 104° was again

brought down by the injection, and subsequent injections, three times a day, prevented its recurrence. Mehrtens used a solution of equal parts of creosote and camphorated oil, of which he injected twenty minims three times a day. None but good effects were observed.—*Charlotte Medical Journal*.

Delirium Tremens.—Olivé recently observed a case of delirium tremens in a young man of twenty-eight, who had cold sweats followed by dry heat of skin and general perspiration; the nights were filled with troubled sleep and anxiety; dry cough and pain in the hypochondrium were among the symptoms. The morning would come with a multitude of hallucinations and extravagant ideas. There was likewise incoherent loquacity, with intervals of silence, during which the patient seemed singularly stupid, with stuttering speech and tremor of lips. Cannabis indica readily relieved all these symptoms and brought about a perfect physical and mental condition.—*Hahnemannian Monthly*.

Bladder Symptoms.—These complicate a supposed pelvic trouble in women so often that it will be found well worth while to apply local treatment in this direction. Doctor Baldy has found by long experience that such symptoms as painful or frequent micturition, irritability of bladder, bearing-down pains, and bladder distress, are relieved in the case of a considerable number of patients by simple dilatation of the urethra. It is, of course, presumed that these symptoms are not being produced by a positive inflammatory condition (cystitis). Even in the case of true cystitis, urethral dilatation, accompanied by alkaline diuretics and bladder irrigation is invaluable.—*Philadelphia Polyclinic*.

Local Application for Pains.—For the relief of vague pains localized at different points upon the surface of the body, as well as in the treatment of intercostal neuralgia and the pleuritic stitches of chronic pulmonary tuberculosis, apply with a camel-hair pencil a mixture of equal parts of menthol, chloral hydrate, and camphor, once daily, or a symptoms may indicate. Liquefaction of the solid ingredients of the prescription takes place when they are brought in contact. The resulting fluid is slightly stimulating slightly irritant, and decidedly analgesic. Should its too frequent application result in vesication, its use should be intermitted until the parts heal.—*Medical Standard*.

Cleanliness during Menstruation.—Most women develop a veritable hydrophobia at this time, and feel a security in shameful filth. I should like to record myself as in favor at these periods of plenty of boiled water, both as a douche with a proper nozzle and as a bath locally. If there is one time above all others when a woman should maintain perfect cleanliness, it is this one. The vagina full of blood and debris, the endometrium open and absorptive, and an abundance of organisms present, all offer the best possible factors for setting up conditions which too often the text-books record as ending at the menopause.—DOCTOR WITHERSPOON, in *Medical Fortnightly*.

Sodium Phosphate Hypodermatically.—Naamé has obtained excellent results in the treatment of syringomyelia and unilateral astasia-abasia with hypodermatic injections of sodium phosphate one part, in six parts of glycerin and fourteen of distilled water. After a month's treatment, during which fifty injections were administered, the pain disappeared almost completely in the case of syringomyelia, and the patient was enabled to sleep; the effusions existing in knee and ankle joints were reduced to nearly half the size. The patient suffering from unilateral astasia-abasia was completely relieved after twenty-five daily injections.—*North American Practitioner*.

A Remedy for Dandruff.—Having suffered much inconvenience from dandruff, I was finally induced, from my knowledge of the frequent efficacy of sulphur in certain cutaneous affections, to try a preparation of an ounce of the flowers of sulphur in a quart of water, with the happiest result. The sulphur was frequently agitated in the water during intervals of a few hours, and the clear liquid then poured off, with which the head was saturated every morning. In a few weeks every trace of dandruff had disappeared, and the hair became soft and glossy. After discontinuing the treatment for eighteen months there is no return of the disease.—*Louisville Medical Monthly*.

Traumatic Rupture of the Diaphragm.—A patient had received several wounds by stabbing in the left side of the chest. Through one of these, which was situated in the ninth intercostal space, there was a protrusion of omentum, on the reduction of which a penetrating wound could be felt in the diaphragm. After the protruding omentum had been

placed within the abdominal cavity, and the wound in the thoracic wall enlarged, the slit in the diaphragm was closed by sutures. Healing occurred by first intention and the patient made a good recovery.—SCHLOTTER, in *Correspondenz-Blatt für Schweizer Aerzte*.

Intestinal Atony.—I have successfully employed rectal insufflations of boric acid for the relief of the flatulence and constipation dependent upon atony of the bowel. All that is necessary is a powder-blower, the anointed nozzle of which is introduced into the rectum after thorough separation of the nates. From thirty to sixty grains of boric acid is thus introduced. The nozzle of the insufflator should have a calibre of from one-quarter to two-fifths of an inch, and the rubber bulb should be sufficiently large and stout to accomplish its purpose effectively.—MERKLE, in *Münchener Medicinische Wochenschrift*.

Fluid Extract Jaborandi.—I have used this drug as a topical application in erysipelas with most gratifying results. In three cases it aborted the disease, which was spreading rapidly. In every case its action was prompt and relief almost immediate. I paint the parts two to five times in twenty-four hours. Its first effect is a sharp smarting, which lasts but a moment, followed by the most agreeable, soothing sensation. I have used it also with good results in other forms of irritation of the skin, burns, scalds, some forms of eczema and psoriasis.—J. M. DUNCAN, in *Medical Brief*.

Rumex Crispus.—Doctor Wingfield reports the case of a widow aged sixty, who for ten years had suffered from morning diarrhoea; the motions were five or six in number, beginning daily about 6 A.M. and lasting till noon, liquid and watery. They made her feel very weak, and she had lately lost flesh and strength. Immediate relief was had by the use of *Rumex crispus*, and in a few days the diarrhoea ceased, the motions gradually becoming formed and healthy. She remained under observation for a year, and had only one slight relapse—this from indiscreet dieting.—*Exchange*.

Amenorrhœa and Dysmenorrhœa.—In two cases of amenorrhœa, one of twenty-two months' duration, the other of seventeen months', I had the most flattering results with soft capsules of red apiol. By administering the five-minim capsules, commencing four days prior to regular time, in each case

after the third month the menses came on free without pain, and apparently normal. Each patient has so continued for the past four consecutive months. For dysmenorrhœa I have yet to find the equal of apiol.—E. J. MARTIN, in *Therapeutic Notes*.

Acute Osteomyelitis of Long Bones.—The results of treatment depend on the thoroughness and promptness of operation: In all cases the bone shaft must be freely opened, and thorough eradication of diseased material practiced, followed by disinfection and drainage.

In milder forms, local and constitutional measures may succeed, with bone-trepannage.—*Revue de Chirurgie*.

Citric Acid in Gonorrhœa.—Citric acid is a parasiticide, and gonococci cannot exist in an acid medium. I employ it in one-per-cent. solution for injection into the anterior urethra six times daily, or by irrigation in the strength of 8 to 1000 in both anterior and posterior urethra. Fifteen cases have been successfully treated without complications and with little or no pain or irritation.—PELLISSIER, in *Aerztliche Praktiker*.

Phlebitis after Typhoid.—The limb should be elevated and kept at rest. Over the vein apply equal parts of ointments of belladonna, mercury, iodine compound, and vaselin; apply pressure by means of a flannel bandage. As the swelling subsides, cautious massage may be applied. Rest is imperative, otherwise there is danger of embolism and consequent paralysis.—W. H. WHITE.

Jaracanda in Sore Throat.—Jaracanda is said to be a serviceable remedy in acute sore throat or pharyngeal catarrh when there is no tonsillitis, but the throat is hot and red, swallowing painful, and a great number of small vesicles noticeable. The tincture may be employed both internally and as a gargle every two hours.—*Mannedshrift foer Homœopathi*.

Hyperidrosis.—An alcoholic solution of formalin, of the strength of from ten to twenty per cent., will speedily check excessive sweating. Tannoform is a mixture of formalin and tannin, and, dusted on the affected part, acts very favorably in cases of hyperidrosis or bromidrosis.—FUNK, in *Monatshefte für Praktische Dermatologie*.

Sexual Impotence in the Aged.—

R Tincture cantharides, 5 drachms.
Liquid perchloride of iron, 5 drachms.
Tincture nux vomica, 7½ drachms.

Ten to twenty-five drops twice daily in a little water.

—J. DIOS RIBEIRO, in *Nova Triburgo*.

The Anæmia of Pregnancy.—If due to malarial intoxication, give arsenious acid, iron, and quinine. Massage is of great importance. The inhalation of oxygen bears a direct relation to recovery. I have had good results, in obstinate cases, from the ingestion of bone-marrow.—E. P. DAVIS.

Hay Fever.—Discard the use of sprays, and apply to the nostrils, on a cotton pledget, an unguent composed of six parts cocaine muriate, ten of carbolic acid, twenty of menthol, 120 of oil of sweet almonds, 240 of zinc ointment.—*American Medical Journal*.

Bathing and Exercise.—“A little exercise before bathing, and a good deal after bathing, is very essential,” says a household note. It will sometimes be found that some exercise *while* bathing will not be altogether useless.—*Western Druggist*.

Use of Tobacco.—In all cases of hyperacidity of the gastric juice the use of tobacco should be interdicted if possible. Chewing especially, should not be allowed for three hours after meals, because it aggravates the pyrosis.—STEWART.

Hæmorrhoids.—Apply locally night and morning an ointment composed of ten grains gallic acid, four grains extract opium, and five grains extract belladonna, in four drachms of simple ointment.—*Clinical Record*.

Hay Fever.—Take a pill two or three times a day embodying one grain of valerianate of zinc and two grains of compound pill asafœtida.—MCKENZIE.

Hysterics.—It is said that one-tenth grain of apomorphine, given hypodermatically, will not only break up, but thereafter prevent attacks.

Obesity.—Duboisine is said to cause persistent loss of flesh.—*Exchange*.

Medical Progress.

AMYLACEOUS DYSPEPSIA.—The admixture of the food thoroughly with the saliva is very necessary in digestion. It is now well known that gastric juice will not digest starch directly. If the food is well mixed with saliva, the starchy elements are converted into dextrin, and the nitrogenous elements are freed and readily acted upon by the gastric fluid. The saliva also stimulates glandular activity, producing a full supply of gastric fluid, so as to complete digestion of meats and other like articles of food.

The free use of sweets, such as sugar and syrups, impairs the action of the saliva; the use of ice and very cold water is also injurious, and strong acids completely prevent salivary activity. Cold water or iced foods at meals, and vinegar, pickles, and acid fruits, are frequent causes of amylaceous dyspepsia. As farinaceous foods are mostly converted into sugar, it is absurd to mix sugar with them. Ice-cream, preserves, sweet sauces, cakes, and other sweets, are conducive to salivary dyspepsia, and complete mastication is a good preventive of indigestion of this character. All farinaceous articles of diet should be thoroughly cooked, so as to convert them into dextrin, thereby rendering them soluble and more easily acted upon by the saliva.

Pepsin, so much used in all forms of dyspepsia, is of but little benefit in salivary dyspepsia, for it has no amylolytic power; instead, diastase is the digestive agent wherever the starch-converting functions are abnormal, and we now have this in an available form in the Taka-Diastase discovered by Jokichi Takamine. Man devours a variety of articles in the way of diet, such as proteids, carbohydrates, or starch and fats; and each of these is essential to nourish his body well,—if any are excluded, the body suffers loss at once.

Inasmuch as it has been known that animal digestive ferments aid digestion in man, pharmacists have extracted them and introduced them into medical practice; but they have mostly ruined them by mixing with lactic acid, which is a product of morbid digestion. These ferments do not have the vital power they possessed in the living stomach.

The best pepsin can only aid in the digestion of proteids; it does not digest fats and starches. It is inert in dyspepsia of the intestines, which is mainly a result of indigestion of starches. Deficient insalivation is a potent cause, and it is also often the reason why the diastatic or starch-converting power of the duodenal juices proves insufficient.

Diastase is a ferment capable of converting starch into grape-sugar or glucose, a fact long since recognized by physiologists; it even exceeds pepsin or pancreatin in its power to digest proteids.

The physiological steps in the process of preparing the food for assimilation may be stated as: Mastication and insalivation, gastric digestion, and pancreatic digestion. Vegetable food should constitute the larger proportion of our diet. The vegetable, starchy foods need an alkaline element to digest them, but animal and nitrogenous foods require an acid (muriatic, not lactic). The result is, while the stomach may often be at fault in dyspepsia, it is not always so—the trouble may lie with other organs.

Amylaceous articles of diet, such as potatoes, bread, and all starchy food, are first changed into dextrose and maltose—the first step in the process of digestion. These articles soon become sweet after they are masticated well and thereby insalivated. The hydrated starch is acted upon by the saliva, which contains an enzyme called ptyalin; and this starch-conversion continues in the duodenum. Acids interfere with the action of these enzymes, and should not be used just before or after meals; hence all pepsins containing acids are injurious to the digestion of starchy foods, and should be avoided. Proteid articles of diet, such as meats, need muriatic acid, and this is usually supplied by the stomach itself. Pure diastase seems to have identical action with ptyalin upon starch, and such a diastase is now manufactured by Parke, Davis & Co.—a product that is far superior to that of Germany. It seems the Taka-Diastase of Parke, Davis & Co. will accomplish what the enzyme of saliva cannot: it will convert a hundred times its own weight of starch into a soluble state, and its action is quick, almost instantaneous. This converted starch is maltose. —PROFESSOR I. J. M. GOSS, in *Georgia Eclectic Medical Journal*.

ECLECTICS AND THEIR PRINCIPLES.—Eclectics are a class of physicians who maintain that every medicine when taken into the stomach acts on some particular part of the system, and that each has a curative effect upon the part on which it acts, when that part is diseased.

"Medicinæ ad partes curandas habent effectum." If into a glass of water be dropped ten drops each of the fluid extracts of buchu, leptandra, liverwort, achillea, and plantago, and the whole taken at once into the stomach, the buchu will act on the kidneys and

increase the flow of urine, the leptandra will act on the bowels, the liverwort on the liver, and the plantago and achillea will act on the nerves and cure inward pain and toothache if either be present.

Veratrum is the remedy for inflammation. Its fluid extract will abort a felon if applied in time. It is the most reliable remedy that can be used for puerperal fever. The full soft pulse and the high bounding pulse indicate its use. The small, frequent pulse indicates the use of aconite. Care should be taken not to give this when veratrum is indicated. An intermitting pulse, with chilly sensations and yawning, indicates the use of quinine. Flushed face, bright eyes, and contracted pupils, are the indications for gelsemium. Dilated pupils, with head drawn back and great tendency to sleep, indicates the use of belladonna, a valuable remedy in congestion of the brain. The white-coated tongue implies an excess of acid in the blood; an alkali to counteract this state is indicated; a weak solution of bicarbonate of soda given every hour in teaspoonful doses will prove a very effective remedy. The brown-coated tongue implies an alkaline state of the blood; dilute sulphuric acid will be an appropriate remedy, and the tongue will soon become clean under its use. Bleeding from the lungs indicates the use of oil of erigeron; a dose or two of this oil will soon arrest the bleeding; six drops may be given on a teaspoonful of sugar for a dose. Allopathic physicians give astringents to cure diarrhœa. They follow the principle of "*opponens opponendâs curantur.*" Eclectics give such remedies as the nature of the case may indicate. If the diarrhœa be attended with watery stools, they give small doses of podophyllin combined with sugar; if it is attended with great bearing-down pains, the older eclectics will invariably give myrica cerifera, and with happy results. If the diarrhœa be a mild case, gum kino or catechu may be employed. If the case should take a bad turn and end in dysentery, myrica cerifera will prove a safer and more effectual remedy than any of the others now used. There need be no fear that inflammation of the bowels will set in from its use. A dose or two of it will remove the bearing-down pains. I have given it in the diarrhœa of cholera, with not one disappointing result. Ipecac is a very efficient remedy in the diarrhœa of children when given in very small doses; it will arrest nausea and vomiting.

The eclectic principles of medicine may be stated as follows: Every medicine taken into the stomach enters the circulation and is carried by the blood to the part on which it

acts, and for that part when diseased it is a cure. Heartsease, bryonia, lavender, cereus grandiflora and cactina act on the heart, and are good remedies in heart disease. Liverwort, podophyllin and irisin act on the liver and are useful in liver complaint, but not for lung diseases. Lungwort and several other medicines act on the lungs and are found of great service in lung complaints. Kidneywort, buchu and the burned sulphate of iron are useful remedies for stoppage of urine and diabetes. Aloes acts on the rectum, and is useful in the cure of ascarides; it also acts on the uterus, and is useful in dysmenorrhœa but for constipation it is worse than useless.

In perfect health the whole system is in a normal state. Any departure from that state indicates disease. To cure disease, medicines must be given that produce an effect contrary to that of the disease. The lesions of disease indicated by the white-coated and brown-coated tongue must be removed by medicines that bring the tongue to its normal state. To cure fever, medicines must be given to reduce the pulse to its normal state "*Contraria contrariis opponenda.*" Neither allopaths nor homœopaths have these principles of medicine, therefore they cannot claim to be eclectics.—E. P. FORD, in *Medical Standard*.

BLOOD-LETTING IN PNEUMONIA.—Forty years ago it was as much the custom of the physician to carry a lancet in his pocket as it is now for him to carry a thermometer. It was considered an essential part of his paraphernalia, and no physician thought of entering the field of general practice without the little instrument in his pocket. It was the mystic wand by which he controlled a tumultuous heart and reduced a consuming temperature to the limit of safety. The abstraction of blood was considered a necessity in all inflammatory diseases, and for a physician to lose a case of pneumonia without having bled in the course of treatment would have aroused the neighborhood and greatly endangered his future prospects.

I recollect as vividly as if it were yesterday the first case of pneumonia I ever treated. The patient was a young farmer twenty-three or twenty-four years old. He had a wife and baby. The night before I saw him he had a severe chill. When I arrived at his bedside his fever was high. He complained of severe pain in head and breast, with a constant disposition to cough, expectorating a bloody mucus. He was propped up in bed on account of difficulty in breathing. I immediately corded his arm and bled him until he

complained of being faint and sick. I then stopped the flow of blood and prepared for a tea of tart. emetic, which I gave in doses sufficient to keep his skin soft and moist. In the evening I gave him calomel with Dover's powders sufficient to give him ease and rest. The next day I found him a great deal better. With quinine, counter-irritation, etc., he was soon convalescent. It is a question with me, whether the most accepted modern treatment of pneumonia, unaccompanied with venesection, will relieve a milar case of pneumonia as quickly and with as little injury to the affected organs. There is no remedy that will relieve the pain and muscular tension like blood-letting. It at once lessens the momentum of the heart that is driving the blood like a force-pump to the engorged lung and threatening over-stention and paralysis of capillary vessels. The condition of the patient is often too perilous and critical to wait for the effects of the remedies used at the present day as substitutes for venesection. Relief must be given at once or the respiratory organ will be so deluged with effusions and consolidated with exudates that the patient will cease to breathe. Every physician in general practice meets with such cases, which, I am sorry to say, always prove fatal unless treated by a bold and independent practitioner who comprehends the condition and danger of his patient, and dares to do his duty in the face of prejudice and denunciation. Delay and vacillation in such an emergency means death. The action of drugs is too slow; there is no time to wait for their effects.

There is no way to save such cases except to open a vein and relieve arterial tension and pulmonary engorgement; the fear of debility is a bugbear, and has caused the premature death of many useful men and women; venesection strengthens instead of weakens, by relieving the engorged lungs and the overburdened heart.

There is no doubt that this remedy, powerful as it is for good or evil, was at one time greatly abused. This is no argument against its proper use. I am of the opinion that the day is near at hand when it will again be considered an important remedy in treatment of pneumonia. Of course, blood-letting is not necessary in every case of pneumonia. On the contrary, much the larger proportion of cases do not call for it. But I repeat there are cases, and every practicing physician is able to meet with them, that cannot be saved without free and copious bleeding in the early stages. Without blood-letting they will surely die; with it they may be saved. I conclude, therefore, by saying, every phy-

sician should carry a lancet, and should not hesitate to use it when indications call for it. —A. N. PERKINS, in *Texas Medical Journal*.

FŒTAL HICCUGH.—Singultus has for many years been observed in the child *in utero*. I have recently seen two cases, but think no pathological significance can be attached to the phenomenon. It has been observed as early as the seventh month and up to and during labor. Active movements on the part of the mother may cause an attack, and likewise prolonged and rough palpation; but the attacks may also occur during the woman's sleep.

Hink observed an attack of hiccough in a deeply asphyxiated child, unattended by the usual sound, and after removing some mucus from the trachea the child had another attack, attended by the usual characteristic noise. He concludes from this case that there is a kind of singultus without the passage of air through the glottis, and that, therefore, this phenomenon can occur *in utero*.

This movement can be distinguished from others by its position over the back and shoulders of the child; by its frequency, about every four seconds, which excludes foetal or maternal pulse; and by the suddenness of the motion, its jerky character, and short sound, which distinguish it from partial contraction of the uterine or abdominal muscle.—DE LEE, in *Chicago Medical Recorder*.

LONG SURVIVAL AFTER INJURY TO SPINAL CORD.—Doctor Kent notes a case of rupture of the posterior common ligament between the sixth and seventh cervical vertebræ. The cord was normal except for a space of about an inch, beginning opposite the articulation of the body of the sixth or that of the seventh cervical vertebra, and extending upward to near the origin of the sixth cervical nerves. For this distance the membranes of the cord were not broken, and showed only slight signs of an old inflammation; but the substance of the cord was of the consistence of thick cream, and extended from the roots of the nerves as they were severed, leaving nothing but the connective tissue and membranes, which formed a thin, flabby connection for the two ends of the cord. From the evidence at the time of injury and at the autopsy, it was concluded that the weight of the body was thrown on the forehead in such a way as to lift the sixth vertebra up and slide it back over the seventh, as there were

dirty cuts on the forehead and nose, and the posterior common ligament was torn through, while the ligamentum nuchæ was intact. The patient lived seven weeks after the injury.—*Virginia Medical Monthly*.

ACTION OF CONDIMENTS ON DIGESTION.—In nearly all experiments dealing with the action of condiments or other like substances on digestion, the work has been limited mainly to the influence of the substance upon the secretion of gastric juice or to the effect of the presence of the substance upon the purely chemical process of gastric digestion. Gottlieb, however, recently discovered that when condiments are introduced into the stomach, there is marked increase (to three or four times the usual volume) in the secretion of pancreatic juice. As might be expected, the juice secreted under these conditions is somewhat more watery than normal, but it exhibits the usual digestive properties on all three classes of food-stuffs.—*Food and Sanitation*.

CAUSES OF STERILITY.—These may be enumerated as follows:

Anomalies of the hymen or malformation of the genital tract,—a very large vagina can also be the cause of sterility, as the sperm flows out immediately after coitus:

Vaginismus:

Excessive acid reaction of the vaginal mucus, which destroys the power of motion in the spermatozoa:

Narrow external or internal os, ante flexion, retro flexion, endometritis, gonorrhœa (especially with involvement of the adnexa), neoplasms:

Constitutional diseases, as tuberculosis, syphilis, chlorosis, and obesity.—*GRAEFE*, in *Centralblatt für Gynäcologie*.

VARICOCELE.—This condition occurs on the left side in a proportion or ratio of twenty to one. There are four good reasons for this frequency: The left testicle hangs lower in the scrotum, and thus the veins support a heavier column of blood: The spermatic veins on the left side are pressed by the sigmoid flexure of the colon when distended: The spermatic veins of the left side join the renal vein at a right-angle to the current of blood, thus impeding the rapid return of blood from the left testicle and veins: The left spermatic vein is by some authorities stated to be poorly supplied with valves.—*RAND*, in *Medical Record*.

ORCHITIS AND PERITONITIS.—*Hornus* reports a very unusual case in which a soldier without having received an injury, without gonorrhœa, mumps, or any other preceding disease, was suddenly attacked by an acute double suppurative epididymitis and orchitis which spread up the spermatic cord to the peritoneal cavity. Suppurative peritonitis followed, with death in five days from the onset of the trouble. At the autopsy the testicular substance was found to be replaced by pus. It should be mentioned that at the time there were some cases of mumps in the same barracks.—*Centralblatt für Chirurgie*.

DETERMINATION OF SEX.—There is a theory that ova from the right ovary develop into males; those from the left into females. Rabbits from whom the right ovary had been removed bore only female young, while those from whom the left had been extirpated brought forth only male. Again, in all the cases of tubal pregnancy of which I could find notes, where the sex of the fœtus was given, nineteen in all, those of the right side were always males, those of the left females. These points would seem to merit further investigation.—*SELIGSON*, in *Boston Medical and Surgical Journal*.

A NEW HUMAN PARASITE.—At a meeting of the French Society of Biology, *M. Curti* presented a description of a parasite which he found in a subcutaneous tumor of the inguinal region. The structure of the tumor resembled that of a myxo-sarcoma. The parasite was found in two forms—in the free form, or without a capsule, which occurred in cultivations in glycerinated potato cultures the other an encysted form, in the living tissues. The discoverer was at first disposed to class this parasite with the yeasts, on account of its enormous size.—*The Lancet* (London).

FUNCTIONAL HEART-MURMURS.—Functional heart-murmurs are frequently mistaken for organic murmurs. The former murmur may be either rough or soft; its position may be either in the pulmonary region or to the right of the apex and louder in the left fourth interspace close to the sternum; it is much affected by position, and is loudest when the patient is either lying down or standing. Some of the murmurs are loudest after rest, others after exercise; they are all markedly affected by rest.—*DRUMMOND*, in *The Lancet* (London).

The Medical Age.

VOL. XIV.

DETROIT, JUNE 10th, 1896.

No. 11.

Original Articles.

THE INFLUENCE OF A PREVIOUS SIRE.

BY A. L. BELL, M.D.

For generations past it has been believed and tacitly acknowledged by many honest observers that the progeny of one sire may be influenced in color, formation or other outstanding characteristic by a previous sire by which the mother has produced offspring, until, at the present day, it constitutes one of the fundamental beliefs that such is actually the case. For example, it is firmly believed by veterinarians and horse-breeders generally that if a thoroughbred mare have a foal by a work-horse or a stallion of any different breed from herself, she is spoiled forever for breeding purposes, because, even to a thoroughbred stallion, she will produce foals with a trace of impurity derived from the alien sire of her previous foal. There are several well known cases often quoted in support of this belief. In the oft-quoted case recorded by Lord Morton, a seven-parts bred chestnut mare was served by a quagga, the result being a hybrid foal resembling the quagga, especially in having stripes on the body, this being only what was to have been expected from the way in which the foal was bred. Next year, and two following years as well, the same mare was put to a black Arabian stallion, and the foals by this sire also showed traces of the quagga "in the possession of body-stripes and bars on the legs."* It seems strange that in this instance the bars on the legs should be referred to the influence of the quagga, seeing that the quagga, though striped on the body, has no leg-stripes, as the zebra has.

In a second case, that of "Greyfriar," a

race-horse got by "Hermit," a thoroughbred, out of "Perseverance," also a thoroughbred, his gray color is said to have been due to the influence of a gray horse by which Greyfriar's dam had produced a foal the year before. But as Perseverance was herself a gray, having thrown back a long way to a gray ancestor, the case may be dismissed as valueless in reference to this subject.

There are many other instances, more or less marked, and recorded with more or less conciseness and detail. For instance, M'Gillivray reports a case quoted by Doctor Alexander Harvey in the *Aberdeen Journal*,* as follows: "A mare belonging to Sir Gore Ouseley was covered by a zebra, and gave birth to a hybrid. The year following, the same mare was covered by a thoroughbred stallion, and next year by another horse; both the foals thus produced were striped, *i.e.* partook of the characters of the zebra."

This is, in all probability, the case of Lord Morton's chestnut Arab mare, which became the property of Sir Gore Ouseley after bearing a foal to a quagga.† However that may be, the case is described in a slipshod fashion; no account of the mare's breeding is given by M'Gillivray; and there is another objection, to which I shall refer in criticising Lord Morton's case.

In a case referred to by Doctor Harvey, a healthy woman was twice married; her first husband was scrofulous, as were her children. The second husband was perfectly healthy, and, so far as was known, had no trace of scrofula, yet the children born to him by the widow of the scrofulous husband were tainted distinctly with scrofula; and it is explained that the first husband not only tainted his own children, but impressed his taint on subsequent offspring not his own. But it is

* *Philosophical Transactions*, 1821, p. 20. Darwin: *Origin of Species*, chap. v, p. 129.

* March 28th, 1849.

† *Philosophical Transactions*, 1821, p. 20.

more probable, in this case, that the scrofula was a form of syphilis, or, as Harvey himself says, "the wife may have imbibed the virus in a *latent* form, and subsequently contaminated the children of the second husband."*

Harvey quotes also a case which was reported to him from the Island of Grenada, where certain ewes, themselves *white* and *woolly*, were served by a ram of a chocolate-color and having a *hairy* or coarse fleece. The year following they were served by a ram of their own breed, "but the progeny showed distinct marks of resemblance to the first sire." Besides the imperfect description of the "marks of resemblance," and the absence of any details as to the pedigree of the ewes, it is not made clear that the ewes were guarded from the intrusions of the "chocolate-colored ram" during the second breeding season. It is well known to sheep-breeders that rams will travel long distances to fulfill their destiny with ewes in season.

There is yet another case which I have seen put down and heard related, but cannot tell who is the author. I refer to the instance of a white woman whose first husband was a Negro, and who afterwards married a white man. She bore children to both husbands, and it is stated that the children of her second husband possessed Negro characteristics due to the influence of the first husband.

To account for the influence of a previous sire, there are two theories put forward: *First*, that the spermatozoa of the first sire pass up the Fallopian tubes to the ovaries and are absorbed by the unripe ova contained therein; and that these spermatozoa, though of insufficient power to fertilize the unripe ovum, have yet sufficient power to alter the development of that ovum subsequently when it is fertilized by the spermatozoa of the second sire. I think it is admitted that the life of the spermatozoa is limited to a few hours, or days at the longest, and that their powers of fertilizing exist only during their life. When a spermatozoön is absorbed into an unripe ovum, it must surely die, so far as its individual existence is concerned, by becoming part of the ovum. It seems to me incredible that a dead sperm-cell can ex-

ert any influence on the development of an ovum by which it was absorbed months before, unless the ovum possesses some special power of preserving, not only *its own latent power*, but the potency of the sperm-cell on which it depends for the special growth intended by Nature.

The *second* explanation of this supposed influence of a previous sire is, that there is an interchange of constituent parts of the foetal and maternal blood-currents. The exact amount of interchange between the two currents is not defined. We know that, on the one hand, certain constituents of the mother's blood connected with the nutrition of the foetus and oxygenation of the foetal blood, pass from the mother's blood to that of the foetus; and, on the other hand, that certain constituents of the foetal blood connected with the removal of effete and excrementitious products pass from the foetus to the maternal blood-current by means of the placenta. It is asserted that some part of the foetal blood enters the maternal circulation—not perhaps as blood, but in one form or other; but, at any rate, in whatever form it may enter the maternal blood, it is asserted that the foetal element thus given up to the mother is kept by her and enables the mother to impress the characteristics of the offspring of a previous sire on subsequent offspring got by a different sire: that is to say, the first sire impresses his own offspring with certain of his own characteristics; the offspring of this sire impresses the mother through the blood-current; the mother, in turn, transmits the peculiarities of the first sire to her subsequent progeny by means of the blood element she is said to have received from her first offspring. Let us suppose for a moment that this influence of a previous sire exists in fact, and that the explanation here quoted is the correct one. We are driven, then, of necessity to the conclusion That the foetus actually gives up to the mother, besides the waste products, some essential part of its blood, carrying with it the key to hereditary transmission, for it is impossible that the effete material passed from the foetus to the mother can carry any such power: If so, then the blood of the mother must become more and more mixed with each succeeding pregnancy, and be lia-

* *Monthly Journal of Medical Science*, September, 1849, p. 1136.

ple therefore to impress on her offspring the peculiarities, not of *one* sire only, but of *every previous sire* to whom she has borne offspring. It is impossible adequately to comprehend where such a theory would lead us. It is, fortunately, not necessary now to discuss the ultimate ramifications of such a far-reaching and, as it seems to me, unnatural process, so utterly at variance with what we know of the definiteness of the physiology of Nature.

The theory which was at one time advanced by McGillivray in the *Monthly Journal of Medical Science*,* that the influence of a previous sire was due to an actual transfer of blood from the fœtus to the mother, cannot be entertained, because it has been proved beyond cavil or dispute that in ordinary circumstances, at least, no commingling of the maternal and fœtal currents can take place, and that the two currents are not only distinct from each other at first, but remain so up to the very end of pregnancy. The two Hunters were the first to enunciate that there was no commingling of the two currents, the placenta acting as the means by which the blood of the fœtus is oxygenated by *indirect* contact with the blood of the mother, and also as a channel through which material for the building-up of the fœtal tissues is supplied and effete matter removed. The Hunterian view of the structure of the placenta is that almost universally entertained. Doctor John Reid's and Professor Goodsir's researches, as well as those of Sir William Turner on the structure of the placenta, have proved that the connection of the two currents is indirect. In Magendie's Physiology† it is stated that "when a pregnant female dies of hæmorrhage, the fœtal vessels remain full." In curious contrast to this statement is the case quoted by Dr. Alexander Harvey in the *Monthly Journal of Medical Science*:‡ "A pregnant cow was seized with bleeding from the lungs; the bleeding continued till the cow died after a certain number of days"—the exact number of days is not stated. After death the fœtal blood-vessels were almost empty, like the mother's, and it was sought to argue that the connec-

tion between the two vascular systems was direct, and that draining the maternal vessels meant draining the fœtal vessels as well. But it does not appear so remarkable when it is considered that the mother bled slowly to death, living for a number of days, in the course of which the fœtus was practically starved to death, the blood being used up and changed in character, so that the vessels were empty just as they would have been after ordinary death from starvation. So that, in *ordinary* circumstances, the influence which is claimed on behalf of a previous sire cannot be derived through the fœtal blood entering the maternal current as blood.

But, though I have never seen such a case stated, I can readily understand how a *direct* connection might be brought about in certain abnormal conditions of the placenta. For example, if the thin membrane which ordinarily separates the fœtal from the maternal blood were to give way, fœtal blood, as *blood*, would undoubtedly mix with the maternal blood, locally at least. But we have no means of knowing whether in such circumstances the fœtal blood thus introduced into the maternal current would be treated by the maternal system as an effete substance from the fœtus and eliminated as speedily as possible, or would be taken into the mother's system as a matter of course, there to become part and parcel of the maternal blood-current, or kept there for long afterwards, to act during a subsequent pregnancy as a kind of ferment, giving to the mother's blood the power of impressing on subsequent progeny the characteristics of the fœtus from which the alien element in her blood was originally derived. It was held by Prevost and Dumas that the blood-corpuscles of the fœtus, especially in the later stages, are larger and of a different shape as compared with those of the maternal blood, so that it is probable that in such circumstances, if the fœtal blood enters the maternal current, it will be rapidly eliminated or changed without delay till it exactly resembles the maternal fluid, losing its own individuality by merging into the larger and more potent blood-current.

But though in ordinary circumstances no fœtal blood, as blood, can pass into the maternal current, it is claimed that one of the constituent parts of the fœtal blood, such as

* October, 1850.

† Second edition, p. 509.

‡ October, 1850.

the serum, may do so and carry with it the potency which is claimed for it. But then it has never been demonstrated that the presence of foetal blood, as blood, in the maternal circulation has enabled the mother to hand on the peculiarities of the foetus to her subsequent progeny by a different sire. And it has certainly not been shown that the entrance of one of the constituent parts of the foetal blood can do so. If the presence of foetal blood, or some constituent part, really confers this power on the maternal blood, then the transfusion of blood from a foetus carried by another female, or, for that matter, from an alien *after-birth* even, to the blood-current of a female, would give this female the same power of transmitting the peculiarities of the alien whose blood she received by transfusion, to her progeny. It has been supposed that the process of hereditary transmission resembles the transmission by a female of acquired syphilis to her progeny. I cannot help thinking that the transmission of hereditary peculiarities is a very different process to the passing of the syphilitic poison from the mother to her offspring while *in utero*. The latter is merely a contamination of the foetus by the diseased mother, the process being on all fours with the passage of an active poison like strychnine from the mother's blood to that of the foetus. The transmission by heredity is on a much higher plane, and is as yet almost a sealed book, so imperfectly understood is the process. It has never been demonstrated wherein lies the germ of potentiality of hereditary transmission. It is manifest, however, that at any rate the spermatozoa and the ova have the power of handing down the characteristics of the male and female, respectively, which produced them, to the organism resulting from the union of these elements. Whether the blood, or one of its constituent parts, possesses the power of carrying the hereditary essence, is, to say the least, very uncertain. It is far more probable that the male and female germs alone possess this power, and *that* quite independently of the blood of the male and female by whom these germs are produced. The blood, to all appearance, acts as a nutrient pabulum, and there is every probability that it has no other function in life than simply to nourish the tissues and

structures which are brought into contact with it.

It must be remembered that the claim, which is made by those who believe in the existence of such an influence from a previous sire through the blood, not only depends on the action of some part of the foetal blood which has been taken into the maternal blood-current, but implies that this action is exerted in every case weeks, months, and years after the interchange which is said to take place has been accomplished. Short of absolute proof, which has never been adduced, I am constrained to conclude that there is not even a reasonable probability of the existence of such an influence, while no proof whatever has been brought forward to show that the blood in any case has the power of hereditary transmission. And yet the theory having been put forward as a positive fact, and accepted as such, any proof to the contrary must of necessity be negative proof, and it requires an immense accumulation of negative proof to overthrow even a mistaken theory; but this is away from the point at issue.

Though there is no direct communication between the vascular system of the foetus and that of the mother, still the connection of the foetus with the mother is so intimate by means of the placenta, where the two systems are really dovetailed into each other, that any active poison introduced into either system will undoubtedly poison *both* organisms, provided the circulation continue long enough to carry the poison to both. If, for example the blood of the mother be poisoned, that of the foetus will very soon be poisoned as well provided always that the mother does not die before the poison has time to reach the placenta, and through it the foetus. If the mother died very quickly, the foetus would not die from poison, but simply from suffocation. It was for a long time believed that "poisons injected into the umbilical arteries although mixing with the blood on its way from the foetus to the placenta, do not affect the mother."* "I have often injected very active poisons into the vessels of the cord but have never seen the mother suffer."† Bu

*Alison in Cyclopædia of Practical Medicine vol. i, p. 83.

†Magendie: Compendium of Physiology.

this teaching was proved to be entirely erroneous by Sir William Savory.* It is probable, in the light of Savory's experiments, that the injections of poison, as performed by Magendie and Williams of Liverpool, were so powerful that they killed the fœtus almost instantaneously, stopping the fœtal circulation and thus preventing the poison ever reaching the placenta, and through it the mother's blood.

Sir William Savory experimented on pregnant cats, rabbits, and dogs, and his experiments were not only complete and thorough, but quite conclusively proved that "such a poison as strychnine introduced into the chest or abdomen of a *live* fœtus will certainly reach the blood of the mother, if the fœtus live long enough to send the poison to the placenta, in which it is absorbed by the maternal blood." Savory put the pregnant mother under chloroform, opened the abdomen and uterus, and then gently withdrew one or more of the fœtuses, taking great care not to injure the cord. He then injected a grain of strychnine in solution into the chest or abdomen of several of the fœtuses, and returned them to the uterus, which was closed by means of sutures. Convulsions set in almost at once in the fœtuses, and, after an interval of from twenty-five to thirty minutes, these seizures commenced in the mother, who was kept steadily under chloroform, and death resulted from the poison in every case, though in one instance Savory put the mother at rest by anticipating the poison. An interesting fact was noted in one of these experiments: "The fœtuses were alive after the mother expired, though they had been convulsed almost from the moment of injection." The explanation offered by Savory is that the mother died from asphyxia chiefly, but the fœtuses, not being dependent on the action of the respiratory muscles, died more slowly from sheer exhaustion. In the last experiment on a pregnant bitch near full term, the fœtuses were placed, after the injection of the strychnine, in a basin of water at a temperature of 100° F., and quite clear of the mother; but the results were just the same, proving quite conclusively that poisons pass from the fœtal circulation to that of the

mother no less certainly than in an opposite direction.*

The length of time elapsing between the introduction of the poison to the body of the fœtus and the onset of convulsions in the mother bears out the conclusion that there is no direct connection between the two vascular systems, else the convulsions would have seized the mother almost immediately after the injection of the fœtus; but these experiments go further, and show the *possibility* at least of some part of the fœtal blood passing into the maternal circulation during gestation.

Unfortunately, they leave untouched the great question to which I have already referred, as to whether the fœtal blood or any part of it actually possesses the power that has been theoretically claimed for it.

The passage of such a poison as strychnine from the fœtus to the mother seems to me to be analogous to the removal of effete or excrementitious matter in the same direction—the passage of carbonic acid, for example, from the blood of the fœtus to that of the mother in the placenta.

I cannot believe that one sire can influence subsequent progeny, unless the most absolute proof be forthcoming or instances be quoted of the most reliable nature, where the evidence is so indisputable that it cannot be gainsaid. I question the passage of any part of the fœtal blood to the maternal current, and especially I disbelieve in the theory that the fœtal blood possesses the power to impress the mother with the peculiarities of the fœtus, so that she can transmit them to subsequent offspring. *In utero* the fœtus occupies, relatively to the mother from a nutritive point of view, the position of a parasite, much the same as the relation of the mistletoe to the oak. When the statement is made that an unborn child can so impress the mother and change her blood that she can afterwards impress the characteristics of the same unborn child on her subsequent progeny, it seems to me as wild and impossible as if it were to be stated that a mistletoe could alter the development and characters of the oaks which will spring from the acorns produced

* *The Lancet*, April, 1858.

* "Savory on Poisoning the Fœtus," *The Lancet*, April 17th, 1858.

by the tree from which the mistletoe drew nutriment and support.

The experiments of M. Flourens, of feeding a gravid pig with madder, showed that the bones of the fœtus were afterwards colored.* But this does not prove more than was already known, namely, that certain materials contained in the mother's blood pass indirectly to the fœtus.

But the most fatal objection to the recorded cases, so far as their decisiveness goes, seems to me to lie in the fact that in no single instance was the female *proved* to begin with. In the case of Lord Morton's mare, she was put to the quagga and next year to the Arabian horse; but for anything we know to the contrary, this particular mare would have produced to this Arabian horse foals showing stripes more or less defined, even though she had never been served by a quagga. The mare was not pure-bred, and this gives another loophole for suspicion. To make sure that the quagga actually exercised an influence on the foal got by the Arabian, the mare ought *first* to have borne a foal to the Arabian, then one to the quagga, and a third time produced a foal by the Arabian. The foals got by the Arabian, one *before* and the other *after* the introduction of the alien elements, could thus have been compared, and any difference of characteristic note observed at once. So also in the case of the Negro's widow, before cited: to make even a reasonable probability of the matter, the woman ought first to have borne a child to (not a white man, but) *the same* white man who was her second husband, then a child to the Negro, and again a child to the white man, whose children, before and after the production of the half-breed child of the Negro, could then have been compared. Even then there would still have been disturbing elements which would prevent the acceptance of the theory as a fact, unless with very strong proofs which have not yet been produced. For instance, it is no uncommon thing for a white father and mother to produce certain of their family as dark and swarthy as any half-bred child. In the case as I heard it, there was no guarantee

as to the paternity of the children of the second husband; and in a case of this kind the greatest care would have to be taken to prevent any doubts as to the paternity, before founding on a single case, however interesting, a theory such as has been already referred to, at once so startling and so far-reaching in its consequences. Darwin states that "after twelve generations, the proportion of blood from any one ancestor is 1 in 2048, and yet a tendency to reversion is possessed by this remnant of foreign blood."*

In the case of the hybrid from the quagga and the chestnut mare, the mere existence of body and leg stripes and bars on the subsequent offspring, though unusual, proves very little, because it is known that all the varieties of the horse tribe have sprung from a common stock, and that the extreme diversity of the various breeds is the result of selection, natural and artificial, and of surroundings. Darwin says in this connection: "For myself, I venture confidently to look back thousands and thousands of generations, and I see an animal striped liked a zebra, but perhaps otherwise very differently constructed, the common parent of our domestic horse, of the ass, the hemionus, the quagga, and the zebra."† He goes on, further, on the same page, to say that "there is a tendency in the young of each successive generation to produce the long-lost characters of ancestors, and this tendency, from unknown causes, sometimes prevails."

The stripes and bars to which so much weight has been given in Lord Morton's case, as showing the quagga taint, are found, according to Darwin and other observers, in all breeds of the horse, including "a Belgian cart-horse, with a double stripe on each shoulder and leg-bars, Welsh ponies, Norwegian cobs, the Katty-war horses of India described by Colonel Poole."‡ It is further stated by Darwin that this undoubted tendency to reversion is most apt to take place in hybrids; and as the chestnut mare was not pure-bred, I do not think it is going far afield for an explanation to assert that the peculiarities of the second foal were due

* *Annales des Sciences Naturelles*, fourth series, pp. 12-13.

* *Origin of Species*, chap. v, p. 126.

† *Ibid.*, p. 130.

‡ *Ibid.*, p. 128.

solely to reversion to an impure ancestor on the dam's side, as represented by the remaining eighth part of her breeding.

The same thing has been noticed among pigeons. If two members of different breeds of pigeons be mated together, there is a strong tendency to produce young birds with the blue color and wing-bars peculiar to the Rock pigeon, from which all the varieties of modern pigeons have come. This is the case even in the hybrids of parents which, if mated with members of their own respective varieties, would breed true and pure, generation after generation.

A friend of mine who is a large breeder of thoroughbred horses, and one of the best judges of horses I have ever known, wrote to me, when I asked his experience on the subject of the quagga foal theory, that "he went once a long way to see such a case, the owner asserting positively that the foal in his possession showed distinct traces of the ass, though it was got by a thoroughbred sire, the mare having produced a foal to an ass the year previous." It is absolutely impossible that this friend of mine could have missed any trace of the ass to be seen in the foal, however faint; and yet he told me in his letter that "the only trace of the ass about the place was the stupidity of the owner of the foal."

"Mulatto," the well known prize thoroughbred stallion, was objected to when he was placed first at the North of England show some years ago, because his dam had previously been bred to a work-horse, and Mulatto himself was said to be impure on this account and to show his impurity in the size of his hoofs, which were very large for a thoroughbred, so large as to be out of proportion to the thickness of the canon bones. But the sire of Mulatto, a pure thoroughbred named "Highclerc," often got foals with large hoofs, his own being very big; and one horse called "Golden Leaf," got by Highclerc out of a thoroughbred mare, I have myself seen, and he had undoubtedly extra large flat feet. In this case there was never any doubt or suspicion of a taint.

If it be possible for a sire to influence subsequent progeny not his own, it is fair to expect that he will be able to influence subsequent progeny which are his own; so that

we ought to find, at least in a certain number of cases, the children of the same parents consecutively resembling more and more strongly their father; but so far as I have observed, the first child is just as apt to be like the father as any of the later children. Of course, it is evident that even when a spermatozoön is absorbed by an ovum, it is possible that that particular ovum may be thrown off without being fertilized, and so in many instances the example may be lost; but even making allowance for such an escape, there ought to be a sufficient number of marked cases to prove the influence of the previous paternity beyond doubt.

Unfortunately, I have not been able to experiment with such distinct varieties as the horse and the quagga, owing to the difficulty of procuring either an ass or a quagga as a sire; but in the spring of 1885 I put a three-parts bred black maiden mare to a thoroughbred horse named "Piccaniny," and she produced a colt foal exactly the same as the sire in color (a bright bay) and outstanding shape peculiarities. Even the white star on the forehead and the white hind foot were reproduced, so that I had apparently a mare that was particularly passive, so far as impressing her own peculiarities on her offspring was concerned. In all the foals which she bore I noticed the same feature, not one bearing the least resemblance to herself. I put her again, the first time she was in use, ten days after the birth of her foal, to another thoroughbred stallion, named "Hamilton," whose sire, "Gladiator," won the Derby, and whose dam won the Oaks. The result was a dark brown filly foal, the same color as the sire, but having the white heel-marks on the hind foot just visible and no more. The foal was like the sire in the peculiar shape and formation of the fore legs, which were too straight at the knees, forming what is known as "pig-knee." This foal had no trace of Piccaniny. Again, I put the mare to a thoroughbred called "Heatherbrae," a bright bay with a white star on the forehead and one white hind leg. The result was a filly foal very dark brown in color, exactly the same shade of brown as Hamilton, the previous sire, but having both hind legs and one fore foot white, and a white blaze down the face. I thought that here was a case which might

possibly owe the color to the previous sire. But I have seen, since the birth of my foal, at least one other foal from a different mare, by Heatherbrae, with exactly the same markings, white hind feet, white fore foot, and white face. It is more probable, therefore, that my foal obtained its color and markings through its own sire from a near ancestor. A fourth time I put the mare to a stallion, this time an American hackney called "Planet," the result being a colt foal, brown, without white, exactly the counterpart of the sire. I intended to put the mare again to Heatherbrae, and compare the first foal got by him with the last one, but unfortunately I was forced to destroy the mare owing to an accident.

From the fact that mares breed only once a year, I found it more convenient to make my next experiments with dogs, which are of quite distinct varieties, and breed very evenly, especially among the older and purer breeds. I put aside the offspring of allied breeds, which are too apt to revert to a comparatively recent common ancestor, and selected only dogs and bitches of known pedigree and of pure and well established breeds. I used, as the alien sire, only a dog of a variety as distinct and far removed from the bitch as possible, thus endeavoring to eliminate any chance of the result being due to community of ancestry.

The first trial I made can hardly be considered a fair test, because the bitch, a pure-bred prize Irish terrier, "Sheila VI.," did not produce puppies by the whippet to which I put her, so that her next litter of two dogs and three bitches by "Champion Breadenhill" were unlikely to be influenced in any case, as the spermatozoa of the whippet were presumably sterile and possibly incapable of reaching the ovaries.

In January, 1890, I put a prize-bred white English terrier, "Lively," to "Leeds Elect," a pure white dog of her own breed, and winner of many prizes. The result was two dogs and three bitches—one dog and two bitches pure white like the parents, and one dog and one bitch foul-marked round the eye and on the cheek, as is often the case in litters of this breed. In May following I put her to a prize-bred black-and-tan terrier, "Captain." This breed, although named English terriers

too, is not only one of the oldest and most distinct breeds, but is far removed from community of ancestry with the white variety. The following period of rut I put the bitch again to Leeds Elect, and the result was four dog-puppies, all pure white. The alien was thus introduced between the litters by Leeds Elect, and the puppies compared. Subsequently I put her to "Champion Eclipse," a pure white dog of her own breed, and got a litter of two dogs and three bitches—one dog and two bitches pure white, and the others foul-marked on the cheek and rump, a variety of foul-mark quite common in the breed.

Three years ago I put a maiden Irish terrier, "Faire Lass," to a prize-bred pedigreed dog of the same breed, named "Craigengillan," the result being a litter of seven pure-bred puppies, which all died before three months, except one. The following "period" she was bred to a clumber spaniel of pure parents, and produced three puppies, one dog and two bitches, flaked and marked with brown patches, with white faces, white rings round their necks, and in all respects like the mongrels they were. In the end of October of the same year, 1891, I put her to a pure-bred Irish terrier of my own, the result being seven puppies—three dogs and four bitches—all pure-bred and without flaw or any trace of the alien sire. Twice subsequently, without missing a "period," she produced puppies to the same dog, one litter of six, and the other of a single puppy, and in no instance did I find any trace of the spaniel.

In 1893, a daughter of Faire Lass had a litter of puppies to a pure-bred Irish terrier named "Barney." Next "period" she was served by accident by a fox terrier, and had a litter to him; the exact number I do not know. I bought the bitch thereafter (as the owner believed her to be spoiled for breeding) and put her again to Barney, the result being one bitch puppy, which is perfectly pure-bred and resembles strongly one of the sisters from the dam's first litter.

The following two cases were related to me by the owners, though they did not come under my own eye. A cousin of my own bred his pedigreed collie to a pure collie dog, and got a litter of eight puppies. Next time she was served by mischance by a brindled

lurcher dog, and produced six puppies, all mongrels. Then she was bred, on my advice, to a pure-bred collie again, but not the same collie as at first, as he was not available. The result was a fine litter of puppies as free from any trace of impurity as her first litter.

A Mr. Hutton, in this town, keeps prize-bred pouter pigeons, one of the purest and best-known varieties. Some years ago he had the misfortune to have his best hen "spoiled" by being served by a "tumbler" cock, another pure and well defined breed. She had previously bred winners to a pouter cock. Undeterred by the fears of breeders, who told him she would never again breed pure birds, Mr. Hutton put her at once to a pouter cock, and continued to do so for several seasons; and he assures me that never once did he have a single foul bird from that hen or any trace of the tumbler cock in subsequent nests. This hen bred two young hybrids to the tumbler cock.

Instances of a white woman bearing children to a Negro and subsequently to a white man are of necessity extremely rare in this country, so that it is very hard to either prove or disprove the American case by producing a case of the same kind. I am glad to say, however, that as the result of numerous inquiries and patient waiting, I am able to put forward a case exactly similar. It is the more interesting and valuable that the offspring of the Negro and the white man, from the same white woman, can be seen and my facts verified by any one who cares to take the trouble.

A white woman, with brown eyes and fair skin, by name Christina Jeffreys, belonging to Markinch, in the county of Fife, bore a male child, on the 1st of November, 1831, to a traveling showman named Dusoes or Deseaux, a pure Negro. The child bears his father's name, and is at present working as a mason's laborer in Cowdenbeath. He is an ordinary mulatto, with strongly marked African features, black curly woolly hair and beard, touched with gray, and having a congenital deformity of the hands and arms. On the 5th of July, 1834—that is, two years and nine months after the birth of the half-breed—the mother bore a child to a white man named Moyes. The daughter's name is Isa-

bella Moyes, and she resides now in Markinch, where I saw and examined her very carefully on the 10th of October, 1895. She is a woman about five feet eight inches high, with brown eyes, fair skin, thin lips, straight, well formed nose, longish face, with the features rather sharp, and coarse black, perfectly straight, hair; the ears are small and thin in substance. There is not the faintest trace of Negro blood in her form or features. I took the dates of the birth of these two children from the fly-leaf of the mother's Bible, which Isabella Moyes kindly produced for my inspection.

Dunfermline, Scotland.

CONCERNING MOVABLE KIDNEY.

BY JAMES B. BULLITT, M.D.

Movable kidney is understood to be a condition wherein that organ has left its bed, and, while still remaining post-peritoneal, is capable of considerable motion up and down or in other directions. By floating kidney is meant a congenital condition, wherein the kidney possesses a distinct mesonephron, and so lies within the peritoneal cavity. Movable and floating kidney are ordinarily employed as synonymous terms; the condition of true floating kidney is one scarcely capable of being diagnosed ante-mortem, some writers to the contrary notwithstanding.

Dislocated kidney is also confounded with the two above conditions; by this is properly understood a condition wherein the kidney is fixed at some point other than its proper bed. Sometimes both kidneys are located low, in the pelvis, not being movable but fixed there; such would properly be termed dislocated kidneys—a condition usually congenital, though a movable or floating kidney might become fixed by adhesions in some position other than the normal kidney bed, when it would properly be called "dislocated."

I propose to discuss here the first of these conditions, namely, acquired movable kidney; but as the condition of congenital floating kidney cannot be diagnostically separated from movable kidney, it will be necessary to include both under the same head. Floating kidney, however, seldom produces the dis-

trressing symptoms that are often caused by movable kidney.

When congenital dislocation exists, it is usually of the left kidney. On the other hand, movable kidney occurs very much more frequently on the right side, seldom on both. The left kidney is less frequently affected because of its better fixation, the artery being shorter and the vessels being fixed on the pancreas. Women are much more often affected than men, the proportion being about seven to one, and women of the working classes, subjected to heavy lifts and strains, suffer more frequently than their more fortunate sisters, despite the fact that the forcing down of the liver by tight lacing is regarded as one of the causative factors in the production of this condition. When the lower thorax is laced tightly and not permitted to expand normally in respiratory effort, the liver is made to hammer up and down, instead of being tipped forward, and the result is that the posterior thick border of this organ impinges on the upper border of the kidney. When it is considered that about 26,000 of these little blows are so delivered in every twenty-four hours, it can be readily conceived that the kidney's leaving its bed is thus facilitated. Pregnancy is also assigned as a frequent cause, but this would seem doubtful, considering the fact that many young women who have never borne children are affected. Disease which is accompanied by rapid emaciation, absorption of fat, is a very important causative factor. The fat bolster being rapidly removed, the kidney is left directly unsupported. Occasionally the kidney is forced from its bed by a tumor growing between it and the liver; Koenig reports such a case.

As the kidney descends, it pulls the peritoneum after it, folds it in, and sometimes thus acquires a kind of mesonephron. Thereby the blood-vessels must be correspondingly lengthened. As a rule, functional disturbances do not occur, and only in exceptional cases does it come to pyelitis, cystic degeneration of the organ, and hydronephrosis, conditions which are to be referred to the pressure effects of the angulated and compressed ureter. Sometimes the displaced kidney presses upon other organs, producing mechanical effects—as on the ascending

colon, interfering with defæcation; or upon the blood-vessels, as the ascending vena cava, producing thereby œdema of the lower extremities. While movable kidney does not always incommode, it may, on the other hand, produce very pronounced, distressing and important symptoms: obstinate constipation combined with difficult digestion; pain referred to the region of the stomach, coming on sometimes before and sometimes after meals, without regularity, perhaps apparently relieved by ingestion of food, but sometimes caused thereby; various nervous disturbances, such as occur in utero-ovarian disease, as pain in the back, pain and abnormal sensations in the lower extremities, difficult locomotion. In consequence of these symptoms, such sufferers are profoundly impressed, lose weight, and are sometimes rendered absolutely unfit for work. As a rule these symptoms disappear when the individual reclines on the back, or are at least much less pronounced. When the displaced kidney is of the right side the gastric symptoms are apt to be most marked. There may occur intermittent attacks resembling very much those produced by pyloric stenosis, that are often very severe, occur without any apparent exciting cause, and last sometimes for several days. During the period of menstruation they are apt to be particularly severe. It is conceived that these symptoms are produced by a pulling of the descendant kidney on the duodenum, thereby producing an angulation of that viscus. By replacement of the kidney these symptoms are relieved. Keppler (Koenig) has furnished the assurance that these symptoms are really produced by movable kidney, for he found that after extirpation of the offending organ the symptoms disappeared.

The most important objective symptom of movable kidney is the presence of a movable tumor under the rib-border, especially after the patient has remained long in the standing posture; this tumor is comparatively easy to recognize, if one hand presses the kidney region forward, while the other palpates through the abdominal wall in front; the size of the kidney so palpated is exaggerated, on account of the thick covering through which it is felt. By its form and location the kidney is easily recognizable: The fingers being placed above it, pressing deeply, and then

being carried downward, when the pressure is diminished the kidney can be plainly felt to slip upward under the fingers and disappear under the border of the ribs. The best position for this manipulation is a half-side position with the thigh flexed on the abdomen. Frequently it is necessary to make repeated examinations before the condition can be determined. As a rule the kidney is covered in front by inflated intestine, though, when the pedicle is very long, it is possible for the organ to lie immediately beneath the abdominal wall. The kidney may even occupy a position in the pelvis, and can be pushed from here upward to a position under the ribs. There occur some other acute and peculiar symptoms, the ætiology of which is somewhat obscure: The patient is seized suddenly with violent pain, and at the same time a slight, sometimes a marked, febrile movement occurs, accompanied by a chill; the pain is frequently attended by a profound sensation of prostration: A painful tumor can be felt beneath the abdominal wall: Some distention occurs, and the tumor increases in size, the result of local peritonitis: Sometimes there is even considerable accompanying ascites.

If the displaced kidney is successfully replaced, the symptoms disappear rapidly; if not, they disappear only gradually, slowly. Oftentimes blood appears in the urine, sometimes pus. During the attack the amount of urine excreted is apt to be small; after subsidence large quantities are apt to be voided. These symptoms are attributed by some writers to a torsion and thereby temporary occlusion of the ureter; others assume a like condition of the renal veins. Such attacks are best treated by attempts at immediate manual replacement; this failing, palliative measures must be employed.

Johnson makes the three following postulates: Movable kidney is extremely common: It is capable of producing very distressing symptoms, and in many cases is a menace to life: It is curable by a simple and safe operation.

As regards the frequency of its occurrence, Edebohl makes the statement that of women coming to him for examination he has found one in every five thus afflicted. Of course the claim is not made that this represents the

actual frequency of this condition in women in general; and exactly what this frequency is, it is impossible to state at the present time. It is only certain that movable kidney occurs much more frequently, and produces many more symptoms, than those suspect who do not look for this condition. In order to find a movable kidney, the practitioner has only to examine his patients thoroughly; and he will find this condition a very frequent and tangible cause for many obscure and puzzling gastric and abdominal symptoms.

As already seen, the symptoms are sometimes very pronounced and distressing. Not only may the patient be rendered unfit for his accustomed duties, but life itself becomes actually a burden, or is menaced by the strain of repeated attacks. Of course it cannot be claimed that movable kidney is often fatal or even the cause of any particular discomfort; hence it is only to the minority that the following remarks in regard to treatment apply.

Rest in bed, in dorsal decubitus, for some months, accompanied by over-feeding, and so rapid fattening, is claimed to be sometimes all that is necessary to effect perfect relief; but the number of recoveries attributable to such a plan of treatment must be small. Next comes the application of pads, held in place by bands or springs, the displaced kidney being first replaced in dorsal decubitus before the application of the pad; these pads are very hard to hold exactly in place, especially in any but very thin abdomens, and are apt to be of more comfort to the patient in the sense of something being done than of actual service in retaining the displaced and movable organ in its proper bed.

The operation of nephrorrhaphy, or nephropexy, was first performed by Hahn in 1881, though prior to this time nephrectomy had sometimes been performed. Lindner reported thirty-six such operations, with nine deaths and twenty-seven successes; but these successes might more properly be termed reliefs. Since 1881 the operation of nephrorrhaphy has been performed many times, and has proven simple, safe, and effective. Johnson reported to the Southern Surgical and Gynæcological Society in Charleston, 1894, seventeen operations performed in the three preceding years, with prompt and uneventful recovery in

every case but one; there were no deaths, and relief from distressing symptoms was prompt in the whole series.

Johnson recommends that the patient be placed in a semi-prone position, with a hard pillow or pad placed under the side, thus rendering more prominent the affected side and lengthening the ilio-costal space. Then an incision is made in the loin at about the outer border of the erector spinæ muscle, beginning just below the twelfth rib, and extending downward and slightly outward to a point near the crest of the ilium; bleeding points should be caught up at once and tied or twisted, thus keeping the field of operation clean and dry, and not embarrassed by a number of artery forceps. When the incision has reached the quadratus lumborum, the aponeurotic extension of the transversalis is severed, and the finger reaches into the renal space. The hand of an assistant now presses the kidney from the front into its proper bed. The fatty capsule is torn through and the organ exposed through its entire length, when it is carefully examined by both inspection and palpation,—if desired it can even be brought through the abdominal wall. The finger is made to sweep gently about the kidney, for the purpose of disturbing and slightly irritating its fatty bed; this conduces to a certain amount of exudation, and renders the subsequent adhesions the stronger. The organ is next placed as nearly as possible in proper position, and a medium-sized suture in a curved needle passed through the deeper portion of the cut wall, then well into the substance of the kidney, and finally through the other side of the wound: the ends of this anchor suture are entrusted to an assistant, who makes enough traction to keep the organ in the position desired. The fibrous capsule is now split on the convex exposed border, and the margin slightly turned back, leaving a long narrow band of exposed kidney surface. The reflected edges of the capsule are next stitched by interrupted sutures, usually four on a side, to the deeper portion of the wound; when these are snugly tied, the anchor suture, which has been placed near the upper end of the kidney, is made fast. Great care must be exercised in order that there shall be no considerable pressure from this suture, the object of which is to give

support to, and more certainly fix the position of, the kidney during the process of healing. All the sutures are now closely cut, and the upper and middle portion of the lumbar wound, especially that part traversed by the anchor suture, closed by three or four deeply placed interrupted sutures. The lower portion of the wound is packed snugly with strips of iodoform gauze. This open method of treating the lower half of the wound insures better fixation of the kidney through the more extensive granulation process caused thereby.

The after-treatment is simple, the essential point being confinement to bed for four weeks following operation. By this time the adhesions are sufficiently firm to insure the retention of the kidney in place.

MITRAL REGURGITATION.*

BY F. B. REAGOR, M.D.

The office and function of the valves of the heart is to open to the blood-current as it flows in a normal direction, and to close against it in an opposite direction; if unable to do this duty, it is obvious that disturbances in the circulation and evil consequences will result. An imperfect closure of the valves when it is their duty to close, will allow a portion of the blood to back. A moderate degree of valvular disease may exist for some time without giving rise to any serious results, and this may continue indefinitely with little or no change, or it may increase rapidly, causing at last the most distressing and even fatal consequences. The effects of regurgitation at any of the valvular orifices of the heart, when not compensated, are, a diminution in the arterial supply of blood, with a corresponding stagnation in the venous current, resulting in retardation of the general circulation. In mitral regurgitation the force of the left ventricle is in some measure exerted on the left auricle, as well as on the lungs and the right heart. The impaired function is at first compensated for by an increase in the capacity and strength of the heart: the cavities dilate and become hy-

* Read before the Tennessee State Medical Society.

pertrophied, so that with this augmented strength and capacity a normal amount of blood reaches the arteries for general distribution throughout the entire body. With the systole of the left ventricle a portion of the blood is driven back into the auricle, and during the diastole, in consequence of the overdistention of the auricle and the pulmonary veins, an excessive amount of blood flows into the left ventricle, and it is thus overfilled and is caused to dilate and its walls to become hypertrophied. The auricle cannot compensate for the overdistention, because of its thin walls. The blood is therefore dammed back into the pulmonary vessels, as also to the right ventricle, which in its turn becomes hypertrophied; and thus by the increased force of the two ventricles, compensation for the mitral lesion is made complete. Dilatation is produced by mechanical pressure in consequence of the over-accumulation.

While the hypertrophy is the result of an increased nutrition of the heart muscle, brought about by the increased demand for activity of the heart, it is only in favorable cases that this compensation exists. In unfavorable cases the dilatation early predominates without compensation, and this is apt to be the case in persons enfeebled from other causes or when the valves are acutely attacked. During the period of compensation a harmonious relation exists between the dilatation and the hypertrophy, and for years the individual may suffer no inconvenience from the heart lesion. Sooner or later, however, in most cases, the compensation is disturbed, and various characteristic symptoms and morbid changes take place; the dilatation exceeds the hypertrophy, and the blood is dammed back into the general venous system, giving rise to a train of distressing symptoms that will be at once apparent to the observant thinker.

The cause of this mitral lesion is endocarditis, generally of rheumatic origin. Sometimes it occurs in connection with granular degeneration of the kidneys, and sometimes by an excessive muscular effort, causing a rupture of the valves or their tendons—and this is especially apt to occur when the tissues have been weakened by previous disease. An impoverished condition of the blood or

some deprivation of health may give rise to an atrophy of the valves. A great majority of the cases of organic heart lesions, especially those of the left side of the heart, will give a history of acute rheumatism at some time in previous life.

Mitral regurgitation is to be differentiated from mitral stenosis, aortic regurgitation, aortic stenosis, abnormalities of the tricuspid and semilunar valves, and the functional murmurs of anæmia and dyspepsia. In mitral regurgitation the murmur is heard with the systole of the heart, and with loudest intensity at the apex, near and a little to the right of the nipple; while the murmur of mitral obstruction, heard at the same place, occurs during diastole. The murmur of contraction of the aortic opening is heard during systole, and is loudest over the site of the valves, which is over the sternum opposite the lower border of the third rib, and up along the course of the aorta. Aortic regurgitant sounds are heard during diastole, and are loudest over the aortic valve rather than at the apex. The abnormal sounds of the tricuspid valves are heard, like those of the mitral, with loudest intensity at or a little above the apex, but are loudest a little more to the right, near and sometimes over the sternum. The sound of the semilunar abnormalities is heard at about the same place as those of the aorta, except that it is inaudible two inches up the aorta and is quite distinct the same distance up the pulmonary artery. All sounds of the auriculo-ventricular opening, whether left or right, are transmitted to the apex, while the semilunar and aortic sounds are transmitted upward.

Lesions of the right side of the heart are not attended with irregular pulse. The most important question relative to diagnosis in all cases of heart disturbances attended with physical signs of valvular disease, as well as general symptoms, is, whether or not these are the result of functional disturbances. Most of the symptoms have been known to attend anæmia and dyspepsia, without any lesion of the valves. The abnormal sounds dependent on organic defects are constant, generally, under any and all circumstances, whether the patient be excited or at rest; while those of a functional nature are often absent when the patient is at rest, with the heart calm, can

be temporarily produced by muscular exercise, are often really benefited by exercise, and will generally yield to tonic treatment.

Dyspepsia and anæmia are often accompanied by derangement of the heart, but the fact should not be overlooked that they are also among the results of diseases of the heart. It is, then, of great importance that the diagnosis be correct, as this will, in a great measure, influence the nature of intelligent treatment.

The want of proper differentiation in these affections is doubtless the reason why some recent writers report such brilliant results in curing organic heart disease by great physical exertion, such as mountain-climbing, gymnastic exercise, etc. It must be borne in mind by the diagnostician that in no case is the gravity or the extent of the heart lesion indicated by the intensity of the abnormal physical sounds. Slight lesions may give rise to loud murmurs; and grave troubles may be, and frequently are, represented by feeble sounds. In the later stages of this grave malady, when the heart acts so tumultuously and with such rapidity, it is often difficult to distinguish one sound from another; so at this time physical sounds alone cannot be relied on.

The first clinical symptom noticed by the patient will be difficulty in breathing, perhaps on slight exertion; and this symptom is, of course, in proportion to the loss of compensation and the subsequent obstruction of the pulmonary circulation. As the heart weakens and dilatation becomes more and more prominent, dyspnœa increases until the patient is compelled to stop all exercise; he may then for a time feel comfortable while remaining quiet. But soon the dyspnœa becomes so constant and severe that the patient is unable to lie down. Sleep is disturbed, and soon can be had only while sitting with head leaning forward and resting on a chair or table or something of the kind. Cough soon comes to be a symptom, which may be either dry and hacking, or with mucous expectoration. Hæmorrhage from the lungs sometimes occurs, but is nearly always slight. Blood is frequently extravasated into the air-cells; and hydrothorax may occur, adding to the distress of breathing. The pulse is frequently intermittent; sometimes this is caused

by failure of the ventricular systole, but generally the disturbance in the flow of blood from the auricle to the ventricle is the cause—there is not enough blood in the ventricle to cause an impulse. This miss in the pulse-beat is more frequent in stenosis of the mitral valve than in regurgitation. Pain is a rare symptom of mitral lesion, but there may be an uneasy and indescribable feeling referable to the region of the heart. It is notable that persons with organic heart disease experience no distress or apprehension, while those who suffer with functional heart disturbances are in almost constant dread of impending danger, and full of imaginary fears.

As the heart further weakens, and dilatation comes to be more prominent, dropsical effusion takes place into the areolar tissue and into the serous cavities. The extremities first become swollen, next the face and body, and then the peritoneal and pleural cavities contain serum. The distention of the extremities is sometimes so great that fissures occur and the serum drains away. The face is congested, the lips are livid, and the superficial veins can be seen to be distended. Dropsy from mitral regurgitation takes place on account of dilatation of the heart, and the stagnation of the venous current therefrom. The appetite and digestion are deranged. The liver may be enlarged, though it was of normal size before the dilatation. Emaciation is not an early nor by any means a marked symptom of valvular diseases of the heart. The kidneys participate in the congestion, and thereby the flow of urine will be scanty. Hæmorrhage from the stomach and intestines sometimes occurs from congestion of the mucous membrane.

The prognosis of this valvular disease will depend on the character of the enlargement. As long as it is mainly hypertrophy the patient will suffer no inconvenience; he may even live to old age, and die from other causes. In one case that came under my own observation the patient had acute rheumatism that gave origin to the valvular regurgitation at fourteen years of age, and the compensation was not lost until the age of sixty-five, when, of course, death was the result. The progress of enlargement is generally slow, but after the compensation is lost the prognosis is grave and the patient in

a few months dies, with all the distressing symptoms of cardiac insufficiency.

The treatment of this malady will depend in a great measure on the recognition of the trouble, which in most cases awaits the appearance of the general symptoms. Many times the individual will not apply for treatment until after compensation is beginning to be lost. Even at this time much good may be accomplished by proper treatment and judicious management, which must embrace all means that will rest the fatigued heart, and those that will tend to restore the general vitality of the system. It is useless to try to correct the lesion unless, perhaps, it be very recent. As long as compensation is complete, or nearly so, the patient must be restrained from doing anything that would throw undue strain on the valves. Active exercise and alcoholic stimulants should be absolutely prohibited. The individual should be advised to keep the mind as placid and composed as possible, as any violent mental emotion throws a strain on the weakened valves; he should be made to understand that all habits must be within the bounds of prudence and moderation, and such other advice should be given as seems necessary to prevent the tendency to an increase of the malady.

But, as before intimated, when the patient is led to apply for treatment, considerable enlargement has already taken place. If, then, the hypertrophy exists, the treatment should not be such as would in any way tend to decrease the increased growth of the heart, for the safety and comfort of the patient depend upon it, and this is Nature's effort to compensate for the valvular lesion. Anything that tends to weaken the heart, or to lower the vitality of the person, will do positive harm. Remedies that maintain the tone and vigor of the heart are to be given. The diet should be nutritious. Derangement of appetite and digestion should receive treatment. Open-air exercise of a moderate amount should be advised. Some one has recommended active exercise with the view of strengthening the heart, and reported benefit therefrom. It is best not to go to either extreme, as too much exercise will do harm, while at the same time one who has been accustomed to exercise might grow worse if put

at rest entirely. All exercise that can be taken without fatigue is beneficial. The remedies to be used in intermittent, irregular, weak and rapid pulse, are those that regulate the rhythm, reduce the frequency, and restore the strength of the heart. In this connection digitalis stands in the forefront. It is a remedy that regulates the action of the heart without weakening the power of the ventricular contraction. It is therefore particularly suited to those cases in which dilatation is the cause of the feebleness. The character of the pulse and the strength of the systole will enable us to judge as to the value of the remedy. Strophanthus has a similar action to digitalis, and may be employed. Aconite might be used in some cases. Strychnine or nux vomica may be employed to advantage. Nauseating sedatives are not indicated. The dyspnœa will be benefited by ammonia or ether. Mercury is very beneficial in most cases. The continued use of the bichloride of mercury, digitalis or strychnine, and muriated tincture of iron, is very serviceable. The general dropsy should be looked after; it calls for hydragogue cathartics, which, in place of weakening the heart, aid it. Diuretics are also called for.

I have thus given a general outline of this distressing malady. While Mitral Regurgitation is the caption of this paper, much has been said that applies to any and all heart lesions.

Flat Creek, Tennessee.

DRUG ERUPTIONS SIMULATING SCARLATINA.

Recently Doctor Blackadder, of Montreal, enumerated to the American Pædiatric Society a number of drugs that may give rise to scarlatina-like rashes. The most notable were atropine, sodium salicylate, phenacetin, copaiba, turpentine, iodoform, arsenic, chloroform, mercuric preparations, santolin, ipecac, sulphur, strychnine, and iodine. Doctor Blackadder believes that scarlet rashes are produced by auto-intoxication from the enteric tract, and in support of this calls attention to rashes following enemata, and sometimes occurring in tonsillitis.

THE MEDICAL AGE.

A SEVEN-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JUNE 10th, 1896.

Editorial.

A NEW DISCOVERY.

We are informed by the *Engineering News* that the production of electric energy by the direct combination of carbon and oxygen has been accomplished by Doctor Jacques, of Boston, and that too with an efficiency that promises commercial success. The exact method employed cannot at present be given in detail, though it is hinted the process consists in immersing carbon in a bath of fused caustic soda and forcing air up through the liquid. Doctor Jacques declares he found:

If oxygen, pure or diluted, as in air, be caused to combine with carbon or carbonaceous materials—not directly as in combustion, but by an intervening electrolyte—the potential energy of carbon may be converted directly into electrical energy instead of into heat.

Tests of the discovery are said to have been made recently by Professor Cross, of the Massachusetts Institute of Technology, Rowland of Johns Hopkins, and Stone and Webster, well known electrical engineers. The apparatus employed by each was a group of one hundred iron cells, each twelve inches deep and one and a half inches in diameter, filled with caustic soda, the latter held in a state of fusion by a fire beneath. The cells were connected in series, one wire being attached to the cell itself and the other to a carbon immersed in the electrolyte. The current obtained, we are told, was "sufficient to light thirty sixteen-candle-power lamps, the average potential being ninety volts, and the quantity being sixteen amperes." Only about eight pounds of carbon was consumed

during eighteen hours, and "eighty-two per cent. of the theoretical potential energy thereof was converted into electrical current." The *Engineering News* declares it has "checked this from the figures, and found it correct on the assumption of 14,000 h. u. per pound of carbon." The heat used to fuse the electrolyte was not taken into account, as the amount of fuel demanded in an isolated experiment would of course vary with the size of the battery; neither was account taken of the amount of power used in forcing air into the electrolyte; but both are proper matters for determination in respect to a commercial plant. The *News* further adds:

The high authority of Messrs. Cross, Rowland, Stone, and Webster—who vouch for the genuineness of the discovery—will be recognized by all, and if it is indeed true that eighty-two per cent. of the potential energy of the carbon can be converted into electrical current by means so simple, the importance of the invention cannot be overestimated—it will create greater revolutions than those made by any invention hitherto known. But every engineer will wish to know more of this before passing judgment upon it.

That ordinary carbon should unite directly with atmospheric oxygen at a temperature of only 300°, merely because of the presence of an alkaline bath, will be held by chemists generally as somewhat hypothetical. Nevertheless, it is to be hoped those who have facilities for investigating will repeat the experiments as outlined, and make thorough examination into the claims made.

ACETYLENE GAS.

In the January 10th issue of THE MEDICAL AGE, under the caption of "The New Illuminant," we had occasion to remark upon acetylene gas as the scientific wonder of the day. This editorial called forth a number of letters from readers, the majority of whom sought to discover where plants for the production of a small quantity of gas could be purchased. These queries we were unable to respond to, and are in no better position at this moment; nevertheless the fact remains that acetylene gas has already been utilized in France for lighting railway trains, steamers, etc., and with a degree of success which is far more flattering than that out-

lined in our editorial. French journals also announce that plants are to be had in that country. Consequently it may be assumed that such will speedily become commercial products on the hither side of the Atlantic, and that information regarding the same will be afforded in due course of time through the engineering and other scientific journals.

If the assertions of our French contemporary, *L'Illustration*, are to be relied upon, it is a matter only of brief time when the ordinary illuminating gas as derived from coal will be generally replaced by acetylene, which promises not only far more brilliant (fifteen times more than coal-gas) light, but far greater economy as soon as the manufacture of calcium carburet comes to be effected industrially and in quantities. Small portable acetylene lamps are already offered to the Gallic public.

Unless the illuminating tubes of Tesla, and their prototype as announced by Edison, prove far more economical than the most optimistic claims of their inventors, it is highly probable that electricity—which is by no means an ideal illuminant, considered from a standpoint of hygiene of the eyes—will have to look to its laurels, and that it will be speedily relegated to the production of power and extreme heat, rather than applied to illumination and the evolution of economic temperatures for the household.

THE PAN-AMERICAN MEDICAL CONGRESS.

The Committee on Organization of the second Pan-American Medical Congress has elected Doctors Manuel Carmona y Valle, Rafael Lavista, and Eduardo Liceaga, as President, Vice-President, and Secretary, respectively. The meetings are announced for November 16th to 19th, in the City of Mexico. This date will bring the visitors to the beautiful capital of the sister republic in the midst of the delightful mid-winter season when the climate is most attractive.

A most cordial invitation is extended to the medical profession of the United States and Canada to participate. The occasion should stimulate the medical profession generally to most cordial reciprocation of the generous patronage accorded to the Wash-

ington meeting by our Mexican *confrères*. In fact, it is essential that in this Congress—the most important of all medical congresses in its exclusive, yet broad, American significance—the best thought and the best work of the profession of this continent shall be conspicuous in the proceedings. The zeal and enthusiasm of the Mexican profession, and the active interest of the Mexican Government, will make the second Pan-American Congress attractive, important, and memorable.

Those who contemplate attending should at as early a date as possible send their names and addresses to Doctor C. A. L. Reed, St. Leger Place, Cincinnati, Ohio, in order that the committee in Mexico may be advised of the probable attendance.

Also, titles of papers to be read should at the earliest possible date be sent to Doctor Eduardo Liceaga, Calle de San Andres, Numero 4, Ciudad de Mexico, D. F. Republica Mexicana.

THE SCOPE OF SANTONIN.

This drug has generally been held useless except for the expulsion of lumbricoids, but that it possesses a wider therapeutic scope is apparent from testimony spontaneously given at about the same time from widely different sources and in different medical journals.

Doctor Ben. Brodnax, who is a practitioner of the conservative, hard-headed, common-sense type, writes from Louisiana of most satisfactory results obtained from the administration of santonin in dysmenorrhœa, cystitis, and acute gonorrhœa.

Doctor C. A. White, of Cleveland, Ohio, finds an ointment composed of thirty grains of santonin to the ounce of cerate is most effective for eczema and irritations from any cause about the anus, also for anal fissures.

Doctor H. A. Carrington, of Bristol, Connecticut, recommends it as a superior remedy for the distressing night cough of children, even when lumbricoids are not present; "the success of the remedy is phenomenal."

All of which goes to show that a great deal of the time and energy wasted on new synthetics and nostrums might be much more profitably employed in study of common every-day remedies of known value.

STRANGE FREAK OF NATURE.

Maydl, of the University of Prague, recently opened the abdominal cavity of a young man aged nineteen, who had suffered since childhood from a growth in the posterior portion of the abdominal area. There was found between the spine and intestines the undeveloped form of a female child minus a head, but with discernible extremities, covered with fat and grown over with hair. The fœtus was in a sitting position and connected with the circulatory system of the host in such a way that it participated in the nourishment received by the latter. The trunk was fifteen centimeters long, and hair forty centimeters long was growing from the part where the head should have been.

Maydl supposed the growth to have been a twin child which for some reason or other grew into the lower part of the body of its fellow that was actually born. The young man did not survive the operation, and it is expected a post-mortem will more fully clear up this strange freak of nature.

EDITORIAL NOTES.

An Omission.—

In the Book columns of the last issue of THE MEDICAL AGE was reviewed "The Entail, or The Lairds of Grippy," by John Galt. By some *contretemps* the name of the publishers, Roberts Brothers, Boston, was omitted. This is particularly unfortunate, since the volume is one of absorbing interest; indeed, it is rare that one is permitted to peruse a work so thoroughly delightful in every respect as is this.

Vicarious Menstruation.—

Dr. Hancock, in the *Indian Medical Record*, reports the case of a woman thirty-one years of age who has a discharge from the left breast which invariably begins three days before the onset of the menses; it is at first whitish, then becomes sanguineous, and finally yellowish. It terminates suddenly when the menstrual flow appears, but reappears when the latter ceases, to last two or three days longer. This discharge first appeared one and one-half years after the

patient's youngest child (now ten years old) was born, at which time the uterine cervix was lacerated, which latter gave rise to menorrhagia with scanty flux. The discharge from the breast has been a constant feature of menstruation since the foregoing occurrence. Other noticeable features in the case are that the right breast always remains passive; galactorrhœa is present during the nursing periods; and an escape of fluid occurs from the left breast during coitus.

Vicarious discharge from the breast, which would seem to be more apt to take place than some other phases of vicarious menstruation because of the intimate connection between the mammae and the uterus, is nevertheless of extremely rare occurrence; and it is open to some doubt whether this case is *de facto* one of vicarious menstruation.

American Medical Association.—

The officers for the ensuing year are:

Nicholas Senn (Illinois), *President*; Geo. M. Sternberg (U. S. Army), Edmond Souchon (Louisiana), K. D. Thomas (Pennsylvania), and W. F. Westmoreland (Georgia), *Vice-Presidents*; Wm. B. Atkinson (Philadelphia), *Secretary*; T. F. Sneiman (Pennsylvania), *Assistant Secretary*; H. P. Newman (Illinois), *Treasurer*; Geo. W. Webster (Illinois), *Librarian*.

The *Trustees* are: C. G. Savage (Tennessee), E. E. Montgomery (Pennsylvania), J. M. Matthews (Kentucky), and C. A. Reed (Ohio).

Elected members of the *Judicial Council*: Geo. W. Stoner (U. S. M. H. Service), C. W. Foster (Maine), J. McGaston (Georgia), I. Brumby (New Jersey), and C. H. Scott (South Carolina).

The next place of meeting will be Philadelphia, with Doctor Hobart A. Hare as Chairman of the *Committee on Arrangements*.

Hydrophobia —

In the *Virginia Medical Semi-Monthly Doctor* Wm. T. Walker mentions a fact that may be new to many: That Von Frich, an admirer of Pasteur and studying with the latter, opened an "Institute" in Vienna. He speedily discovered that dogs could be rendered immune (*réfractaire*) to the rabies of Pasteur, but nevertheless speedily died after being bitten by a rabid street-dog; and when he

employed the more rapid inoculation of Pasteur it also failed to render the animals experimented upon immune, or else killed them.

Doctor Walker also suggests—most pertinently—that it is high time the newspapers devoted their columns to the allaying of “hydrophobia scares,” rather than—as is the rule—promoting the same in the interests of sensationalism, thereby causing needless dread and sometimes, no doubt, fatalities.

Asbestos Clothes.—

At the recent meeting of the National Association of Fire Engineers, at Montreal, was exhibited a complete suit of fire-proof (asbestos) clothing. A fireman thus clad entered a burning wooden house, where he remained for several minutes, at the same time going through a performance calculated to illustrate life-saving and to exhibit the advantages of his dress. His hands were protected by asbestos gloves; his boots, of the same material, were soled with iron; and his asbestos helmet was glazed with mica, while a respirator in the crown permitted him to breathe the stifling air with impunity.

A Metal-cutting Insect.—

The *Zopherus melicanus* is the only known species of the American beetle that has strength enough in its mandibles to cut metal—a fact that was accidentally discovered by F. W. Devoe. Some specimens of this insect were sent him from Brazil, and being busily engaged at the moment of their arrival he simply provided them temporary quarters in a glass jar with a pewter top. Within less than forty-eight hours they had cut holes in the metal sufficient to protrude their heads, and would soon have escaped had not their operations been detected.

Increase of Crime.—

Ira C. Parker, U. S. District Judge at Fort Worth, Texas, makes a startling statement as to the current increase in the crime of murder. He declares there were 10,500 homicides in the past year, and 44,000 in the past five years, which were followed by 725 legal executions and 1118 lynchings. He attributes this largely to the immunity extended by the courts to murderers, and the obstruction of justice in many cases by the appellate courts.

Moisture in Apartments.—

The *Scientific American* offers what is claimed to be a very effective and simple test for the amount of moisture in an apartment. A pound of fresh lime is placed in the room, which is then closed for twenty-four hours, at the end of which time weighing the lime gives a definite idea of the amount of moisture. An increase in weight of one per cent. or more evidences that the room is too damp for living purposes.

New Local Anæsthetic.—

In the *Courrier Médical*, Loup describes a method of inducing local anæsthesia which he claims to be most suitable for small operations. He employs olive oil which has been boiled for five minutes, and states that “in dental operations it is equal to cocaine without any of the dangerous possibilities” attached to the latter. He admits its sole action is “by pressure upon the surrounding tissues.”

Poisoning by Boric Acid.—

This drug is generally considered to be wholly harmless, but recently a case of poisoning by it has been chronicled, the details appearing in the *Times and Register*. If the conclusions reached are correct, further investigations of this drug are in order. Moreover, one can hardly conceive of an antiseptic that may not under certain circumstances prove pernicious to the human economy.

The Malarial Parasite.—

Doctor Edward Lawrie, of Hyderabad, famous in connection with the Hyderabad chloroform investigation, and a gentleman possessed of unlimited experience with malarial disease, declares that the malarial parasite supposed to have been discovered by Laveran is most emphatically a myth.

Uses of Ozone.—

It is now said that brandy, wine, linseed oil, and woods for sounding boards are “aged” by the aid of ozone. The same agent is also employed for producing pure starch derivatives, for bleaching, for purifying sick-rooms, for producing nitric acid from the air, and as a scientific curiosity.

Items and News.

An Odd Locum Tenens.—

The following is taken from the "Memoirs of Marshall Castellane:"

The Marchioness of Talarn is over fifty, but she believes it is absolutely necessary for the good of her health that she should have a man beside her at night. Whenever M. de Talarn is absent she consequently makes her people sew up M. de Courtivron, one of his relatives, or else M. de Chavagnac, one of his friends, in a sack, and has him put into her bed. In the morning she is careful to summon her attendants, or, at all events, the chambermaid, in order that they may testify that the sack has not been unsewn. At present MM. de Chavagnac and de Courtivron both happen to be away at Madrid, attached to the embassy of M. de Talarn, so it is M. Boirot, physician of the Neris hydropathic establishment, who for the moment occupies the post of honor. I can assure you that this is in no wise a jest. My secretary is connected with the Doctor, who positively is shut up in the sack every night.

—*Medical and Surgical Reporter.*

A Four-footed Bird.—

This curious anomaly, but recently discovered, is found in the Island of Marajo—a territory of about the area of the State of New York—in the delta of the Amazon. It is only during the period of incubation, at which time the embryo's extra legs and feet are seen at their best, and early in birdhood, that the four-footed feature is at all observable. The creature rids itself of its useless legs before it arrives at the age of six weeks. Ornithologists profess to believe this bird is a survival of some past zoological epoch. Its scientific name is *Opisthocomus cristatus*, though with the natives it is termed *Hoatzin*, which means evil-smelling; and it is also claimed there is not a known carnivorous animal that will feast upon its flesh.

The Truth as to Meat Diet.—

In older countries the lower orders, as a rule, have but a low vitality. The fact is easily accounted for. During generations upon generations the majority of European agricultural populations lived upon vegetable food, like the majority of Eastern Asiatics, and with the same result. Hard labor produces hard muscles, but vegetable food yields a low vital tension, so to say. Soldiers know it well enough. The pale-faced city clerk, who eats meat twice a day, will outfight and outlast and outstarve the burly laborer whose big thews and sinews are mostly compounded of potatoes, corn, and water.—*Indian Medical Record.*

Pocket Soda-water.—

An invention has been perfected which professes to enable any one to carry about a dozen bottles of soda-water or other "mineral" in his waistcoat pocket. It consists in a special stopper to an ordinary soda-water bottle, and a small steel capsule into which is compressed about a drachm of solid carbonic acid gas. The bottle is filled with drinking-water, either flavored to taste or not; the capsule is placed in position in the stopper, and the bottle is closed. By the act of closing, the capsule is penetrated by a pin which is in the stopper, and the CO₂ is thus set free. A few shakes of the bottle, and the soda-water is fit for drinking, but the longer it is kept the better.—*Medical Press and Circular.*

Remarkable Paleontological Discovery.—

From Western Kansas is reported the discovery of an extinct species of bison having a skull expanse of nearly four feet. The specimen has not been identified, but appears to be closely allied to *Bos antiquus*, though evidently larger. The formation is apparently the same as that which yielded the skeletons of *Platygonus* recently obtained by the University of Kansas. The skeleton, which is that of a bull, will be shortly mounted for the University museum. It is evident the animal had been hunted, as a small but perfectly formed arrow-head was found imbedded below the humerus.

Home-made Humidity.—

A certain Frenchman, famous for his habit of grumbling at everything and on all occasions, was attacked by inflammatory rheumatism, and was very carefully nursed by his most devoted wife. His suffering frequently caused her to burst into tears. On one occasion he remarked that his wife was at fault for all his suffering. "Is it possible?" asked a friend present, in surprise. "Yes. The doctor told me humidity was bad, and that woman sits there and cries just to make it moist in the room."—*Pearson's Weekly.*

The Limitation of Woman as a Doctor.—

The late Doctor van Bibbert, of Baltimore, remarked that he was awakened late one night by a ringing at his bell and received a call to attend a lady in labor. He objected on the ground that he did not attend the family, and suggested that the caller go for his own physician, when to his astonishment he was informed that had already been done, and she was *about to be confined herself*.—*Canadian Medical Review.*

Insanity and Murder.—

The Supreme Court of the United States has just handed down a decision which is of much importance in cases involving a question of the insanity of murderers. The Court has reversed the decision of an inferior court, and lays down the principle that the burden of proof of guilt rests in all criminal cases upon the prosecution; in other words, the prosecuting attorney, in cases where the claim of insanity is put up, must prove that the accused is not insane.—*Medical Record*.

High Altitudes and the Circulation.—

Gebhard, Fraenkel and Grawitz have shown there is a notable increase in the number of red corpuscles in persons who go from a low to a high altitude; this increase takes place in from twenty-four to thirty-six hours. It is possible this fact may be one of the reasons for the beneficial effects of high altitude in cases of pulmonary tuberculosis. The increase is attributed to the desiccating effects of a high atmosphere.—*Canadian Medical Review*.

Invisible Radiation by Phosphorescent Bodies.

The great interest at present shown in the subject induced M. Henri Becquerel to report to the French Academy of Sciences a number of recent experiments. The bodies employed were crystals of sulphate of uranium and potassium, the phosphorescence of which is very marked, but only lasts—so far as the rays which affect the eye are concerned—about the one-hundredth part of a second.

Tubercle.—

Doctor J. Madison Taylor says the finest specimens of human development come from a liberal and varied dietary along with much life in the open air. The great scourge of our race, tubercle, is the direct outcome of lack of these. By far the largest proportion of our brothers die of consumption, and nearly if not quite all of this fatality need not be if life were lived carefully.

A Medical Parliamentarian.—

The leader of the Irish Parliamentary party, John Dillon, is a graduate of the Royal College of Surgeons, Ireland. He is now in his forty-fifth year, but there is no evidence that he ever practiced his profession.

In the Sunday School.—

Teacher: "What are the two things necessary to baptism?"

Little Girl: "Please, sir, water and a baby."
—*Life*.

Book Reviews.

UNITED STATES COMMISSION OF FISH AND FISHERIES. Part XVIII; cloth; 8vo; pp. 528. Government Printing Office, Washington.

This report of the Commissioner for the year ending June 30th, 1892, is very complete and forms a valuable addition to the library which has already emanated from this department of the United States Government. There is a report in regard to the "Food Fishes and Fishing Grounds," by Richard Rathbun—a most interesting paper; "Report of the Statistics and Methods of Fisheries," by Hugh M. Smith; "Report upon the Investigations of the United States Commissioner Steamer *Albatross* for the year ending May 30th, 1892," by Z. L. Tanner; "The Myxosporidia, or Psorosperm of Fishes, and the Epidemics produced by Them," by R. R. Gurley; "Bibliography of the Public relative to Oysters and the Oyster Industry," by Charles H. Stevenson; "Report on Fisheries of the Great Lakes," by Hugh M. Smith; "Notes on the Oyster Industry of New Jersey," by Ansley Hall. There are likewise a most excellent series of illustrations, forty-eight in all, illustrating the myxosporidia. The volume will prove interesting and serviceable to every ichthyologist and fisherman, and is a valuable contribution to natural history.

THE CHARAKA-SAMHITA. By Avinash Chandra Kaviratna Kaviraja. Part 14. Octavo; pp. 38. The Deva Press, Calcutta.

The contents of this fasciculus are varied and interesting. The functions of the heart are described, and the "ten great ducts arising therefrom" explained. Next are elaborated and discussed the "five things essential to prolong life," viz.: Universal compassion; increase of energy; subjugation of the senses; knowledge of Brahma; and the practice of Brahma-charyya. Also are carefully pointed out the characteristics that accrue to those that are truly conversant with medical scriptures. The seven principal questions relating to life, and errors concerning them, follow; finally is a dissertation on the conduct of good physicians toward charlatans.

No medical man interested in the archæology of his profession should lose the opportunity of subscribing for this work, which is both unique and remarkable, giving evidence that all of civilization and of medicine does not pertain to the Christian or any other era.

ELECTRICITY IN ELECTRO-THERAPEUTICS. By Edwin J. Houston, Ph.D., and A. E. Kennelly, Sc.D. Cloth; 12mo; pp. 402. Price, \$1.00. The W. J. Johnston Co., New York.

This is one of the volumes issued by this publishing company as a series dealing with electro-technical matters. It is a very plain, concise and thorough presentation of the elementary principles of electricity as applied to electro-therapeutics, and

consequently affords an amount of information very desirable to the medical practitioner—information that is not to be obtained from any other source. Further, electricity of late has made such rapid strides in its application both to medicine and surgery, that the latest information concerning the development of apparatus and theory is required. The method of treatment adopted in description of electro-technics is circual—that is to say, all the phenomena of electricity and magnetism are considered as pertaining either to the electro-static or the magnetic circuit, and the laws of these circuits are developed on analogous lines. This treatment is the keynote to numerous and often complex electro-magnetic phenomena met with in application of electricity to the healing art.

MANUAL FOR THE STUDY OF INSECTS. By John H. and Anna B. Comstock. Cloth; 8vo; pp. 712. Price, \$3.75. The Comstock Publishing Co., Ithaca, New York.

This is a work that has long been needed—viz., a succinct manual that will meet the demands of both student and teacher. It gives all the most important facts regarding insect life, and moreover presents a series of analytical tables whereby the relations of any one North American insect can be readily determined,—under each family group are given the characteristics of the group, and the more common species thereof are fully described. It is thus possible for the reader not only to determine the class and the habits of any one insect, but even to learn its name. Further, the work is embellished by some eight hundred figures, the majority of which have been specially engraved for this book by Mrs. Comstock, and all are of rare artistic value.

This volume must, for many years to come, prove the *sine qua non* of the student of American insects. The authors are to be congratulated upon producing so complete and thorough a work, one that fulfills a want long recognized.

ATLAS OF OPHTHALMOSCOPY. By Professor O. Haeb. Cloth; 12mo; pp. 55. Price, \$3.00. William Wood & Co., New York.

This is a new departure of Messrs. Wood & Co., and they propose to offer the medical profession a series of five "Medical Hand Atlases," of which the book before us is the first—a very desirable addition to medical literature. The Atlas of Ophthalmoscopy and Ophthalmologic Diagnosis has been translated with great care by Doctor Ernest Clark, and besides the fifty-five pages of text devoted to the introduction of the use of the ophthalmoscope, and which constitute one-third of the volume, there are 102 superbly lithographed figures upon sixty-four plates. Even the tyro with the aid of this work will find little difficulty in mastering the matter of ophthalmological diagnosis. Too much praise cannot be accorded the volume for its fidelity to details.

ATLAS OF TRAUMATIC FRACTURES AND LUXATIONS. By H. Helferich, M.D. Cloth; 12mo; pp. 142. Price, \$3.00. William Wood & Co., New York.

This is No. 3 of Wood's hand atlases, and is intended as an aid in a most important field of surgery, and at the same time as a useful book of reference. It contains 166 colored figures which are clear and unmistakable in their delineation. A work of this kind has long been a desideratum to the practitioner, and no one who aims at accuracy or precision can afford to be without it.

A TEXT-BOOK UPON PATHOGENIC BACTERIA. By Thomas McFarland, M.D. Cloth; 8vo; pp. 359. Price, \$2.50. W. B. Saunders, Philadelphia.

This volume is intended to convey a concise account of the technical procedures essential for the study of bacteriology, along with a brief description of the life history of the more important pathogenic organisms and sufficient description of pathological lesions supposed to accompany micro-organismal invasions. Thus it will doubtless find a sphere of usefulness.

THE SEA WOLVES. By Max Pemberton. Paper; 12mo; pp. 227. Price, 25 cents. Rand, McNally & Co., Chicago.

This is a bit of fiction possessed of a thrilling interest that will not permit the reader to lay it aside until the last line has been perused. To give a synopsis of the plot would be to spoil it for the reader. It is a volume by a master hand, and so far above the ordinary run of fiction as to be especially noticeable.

TRANSACTIONS OF THE AMERICAN MICROSCOPICAL SOCIETY. Paper; 8vo; pp. 300. Price, \$2.50. Volume XVII. Published by the Secretary, William C. Krauss, Buffalo, N. Y.

There are the usual concomitants of Transactions, including list of officers, discussions, papers, etc. Space will not permit us to enumerate the latter, which number twenty-eight in all, many of them accompanied by illustrations, and not one of which but is of special interest to the microscopist.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

Contents for May 23d are: "The Site of a Great Library;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture" (vii); "The Girard Statue Models;" "Notes upon the Architecture of China" (iii); "That was Different;" "In Streets and Papers;" "Baths in Public Schools;" "Legal Notes;" "Raphael as an Architect;" "Making Alterations on Tracings;" "Correspondence;" "Societies;" "Industrial Progress."

The issue for May 30th contains: "Effect of the Rapid Transit Decision;" "Editorial Notes and Comments;" "Notes upon the Architecture of China"—iv; "The Slow Growth of Invention;"

"In Streets and Papers;" "Cleveland Chamber of Commerce Award;" "The Century Association Address as to the Hunt Memorial;" "A Geographical Question;" "Concerning Foundations for Heavy Buildings;" "Legal Notes;" "Obituary;" "The Temple of Der-el-Bahri;" "Societies;" "Personal;" "Current Notes;" "Industrial Progress."

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston.

The June number begins with another installment of the "Letters of Dante Gabriel Rossetti," edited by George Birbeck Hill; L. H. Jones writes of "The Politician and the Public School;" "Restriction of Immigration" is by Francis A. Walker. Other interesting articles are: "The Oubliette," by Mary H. Catherwood; "The Bird of the Musical Wing," by Olive Thorne Miller; "Orestes Bronson," by George Parsons Lathrop; "Lord Howe's Commission to Pacify the Colonies," by Paul L. Ford. Fiction is represented by a further installment of Henry James's serial, "The Old Things;" "The Price of a Cow," by Elizabeth W. Bellamy; "The Whirligig of Fortune," by T. R. Sullivan. Book reviews, poems and the usual departments complete the issue.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

The May number contains: "The Probable Influence of Disturbed Nutrition on the Evolution of the Vegetative Phase of the Sporophyte," by George F. Atkinson; "Progress in American Ornithology"—1886-1895—by R. W. Shufeldt; "The Path of the Water Current in Cucumber Plants," by Erwin F. Smith; "On the Mississippi Valley Unionidæ Found in the St. Lawrence and Atlantic Drainage Areas," by Charles T. Simpson. There are the usual Notes on Petrography, Geology and Paleontology, Botany, Vegetable Physiology, Zoölogy, Entomology, Embryology Psychology, and Anthropology, "Scientific News," and "Proceedings of Scientific Societies."

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Co., Irvington-on-the-Hudson, N. Y.

The June issue is even daintier than those that have preceded it, the cover being notable for its illustration with beautiful moss roses. The editor writes concerning "The Independence of Cuba;" Chatfield-Taylor of "Madrid;" Ellen W. Mayo of "A War-time Aurora Borealis;" N. A. Miles, U.S.A., of "War;" John B. Walker of "In Case of War with England;" T. W. Knox of "Convicts and Bushrangers in Australia;" J. A. Altsheler of "The Sharpshooter;" Gertrude B. Stanton of "Doctor Pike and his Wife;" and the two serials, "Mrs. Cliff's Yacht," by Frank R. Stockton, and "Hilda Strafford," by Beatrice Harraden, are continued. There are the usual departments.

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

This magazine for June contains: "The Master's Lesson," by Alice M. Lovett; "What the Bugle Tells on a War-ship," by John M. Ellicott; "Grizzly Phil," by S. F. Hamp; "Old Heads on Young Shoulders," by Arthur Hoerber; "The Story of

Marco Polo" (chapters I-II), by Noah Brooks; "When the Cows Come Home," by Duncan C. Scott; "Talks with Boys and Girls," by Mrs. M. Bernard; "Sindbad, Smith & Co." (XI-XII), by Albert Stearns; "New Mother Goose Jingles," by Dorothy G. Rice; "A Curious Stairway," by Reverend G. Hubbard; "The Lost Princess" (I), by Tudor Jenks; "The Swordmaker's Son" (XVII-XIX), by W. O. Stoddard; "Rain Song," by A. I. W.; "Uncle Ted's Mascot," by Virginia Van de Water; "The Fairies' Trolley," by Anna K. Almy; "Clarissy Ann and the Flood," by L. E. Chittenden; "Rhymes of the States" (XLVII), by Garrett Newkirk.

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The June issue opens with a contribution by Professor Mahaffy entitled "International Jealousy." Other articles are: "British Guiana;" "On Limbo;" "In the Land of Claret;" "A Gossip about Pianists;" "The Philosophy of Blunders;" "Nature in the Earlier Roman Poets;" "In Thomas Hardy's Country;" "The Financial Boom of the Last Century;" "Theory of the Ludicrous;" "The Proposed Gigantic Model of the Earth;" "A Medical View of Cycling for Ladies;" "As the Seasons Change;" "The Victorian Age of Literature, and its Critics;" "The Growth of the British Empire;" "A Royal Plaything;" "Down in the World;" and "The Poet on the Wolds."

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the June number Lue E. Teters writes of "The Moqui Snake-Dance;" Emily Stone of "The Beauty of Mary Stuart;" Clarence New of "A Constantinople Abduction." "Reasons for an Anglo-American Supreme Court of Peace" is by S. T. Willis; Mary A. Fanton writes of "Some Industrial Art Schools for Women;" "Great Singers of This Century" (VII) is by Albert L. Parkes; "Music in America" (XIV), by Rupert Hughes. The fiction in this issue is: "The Belle of the Dinner," by Leon Mead; "A Modern Abraham," by F. W. Wendt; "A Futile Allegiance," by Maude Menefee; "Triplets," by W. B. Crane. There are the usual departments.

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The June issue is particularly interesting. Elizabeth Stuart Phelps writes of "Harriet Beecher Stowe;" "The Little Regiment" is by Stephen Crane. There is another installment of Rudyard Kipling's charming story of Mowgli under the title of "In the Rukh." James L. Crane writes of "Grant as a Colonel;" Anthony Hope contributes chapters VII to X of "Phroso;" Will H. Low writes of "The Pre-Raphaelite Brotherhood;" Ida M. Tarbell's "Life of Lincoln" is continued; Cy Warman tells "How the Locomotive Lost Herself." The poetry is by Arthur H. Clough and Gertrude Hall. A series of fifteen portraits of Mark Twain is also given.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

The May issue opens with a paper by Martin J. Griffin on "History of Parliamentary Dissolutions

in Canada, 1844 to 1891." "A Canadian Bicycle in Europe" is by Constance R. Boulton; "Queen's University and its Founders," by J. J. Bell; "Charles Sangster, the Canadian Poet," by E. H. Dewart; "Kate Carnegie" (chapters VII and VIII), by Ian Maclaren; "The Secretary of the Donga-Pa Mission," by Esther T. Kingsmill; "The Future of the British Empire in South Africa," by David Mills; "The Value of All-British Cables," by Danvers Osborn; "Nondescript," by Ella S. Atkinson. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the June issue is "From Clue to Climax," by Will N. Harben; "A Fellow-Feeling" is by Edith Brower; H. C. Stickney, in "Timely," writes of the Chinese of San Francisco; "The End of a Career" is by Harry I. Horton; I. J. Wistar writes of "Criminal Jurisprudence;" Owen Hall of "Naval Warfare in 1896;" "Feigning of Death by Animals" is by James Weir; "Woman in Business" is discussed by Mary E. J. Kelley; "General and Mrs. Washington" is by Anne H. Wharton. The poetry is by Carlotta Perry, Grace F. Pennypacker, and Charles G. D. Roberts.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

In the June issue there are further installments of "Sir George Tressady," by Mrs. Humphry Ward; "Impressions of South Africa," by James Bryce; "The Harshaw Bride," by Mary H. Foote; "Life of Napoleon Bonaparte," by William M. Sloane. "The Return" is by L. F. Tooker; "Mr. Keegan's Elopement," by Winston Churchill; "Absence," by Melville Upton; "Sayings and Doings of the Todds," by Viola Roseboro; "Humor and Pathos of Presidential Conventions," by J. B. Bishop; "Lights and Shadows of the Alhambra," by Elizabeth R. Pennell.

APPLETONS' POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

Contents for June: "Principles of Taxation" (v), by David A. Wells; "How the Great Lakes Were Built," by J. W. Spencer; Nansen's "Throwing Stick," by J. Murdoch; "Frogs and their Uses," by R. W. Shufeldt; "The Metric System," by Herbert Spencer; "The Monetary Problem," by L. G. McPherson; "Why Progress is by Leaps," by George Iles; "Post-hypnotic and Criminal Suggestion," by W. R. Newbold; "The Subterranean River Midroi," by Paul Raymond; "Our Southern Mockers," by I. W. Blake.

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

The June issue contains: "Amateur Home Decoration;" "Art Trade Supplement;" "Concerning the Library;" "Editorials;" "Furniture and Furnishings;" "Dining-room Interior;" "Remodeling the Commonplace Home;" "Seen in the Shops;" "A Swedish Sculptor;" "Originality in House-furnishing;" "The Rise and Fall of the Mirror;"

"Delf Ware;" "Mural Decorations;" "Of Interest to Women;" "The Summer Home;" "Porcelain and Pottery."

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

In the June number Henry Norman writes of "In the Balkans;" "Sentimental Tommy," by J. M. Barrie, is continued; "The Evolution of the Trotting-Horse" (II) is by Hamilton Busbey; "His College Life," by William DeWitt Hyde; "The Homeheld to the Wanderer," by Grace E. Channing; "Vailima Table-talk," by Isobel Strong; "The Captor of Old Potomac," by Mary T. Earle; "Limitations," by Louise B. Edwards; "At St. Mary's," by H. C. Hale.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Co., New York.

Contents for June are: "The Rosicrucian Brotherhood," by Alexander Wilder; "Karma in the Upanishads," by Charles Johnston; "Being and Number" (XVII), by C. H. A. Bjerregaard; "The Correlation of Spiritual Forces," by Franz Hartmann; "Socratic Method of Instruction," by Artemas Bissell; "Hints at the Creation of Matter," by F. B. Wilson; "The Silent Teacher," by W. J. Colville. There are the usual departments.

OUTING. Price, 25 cents; \$3.00 per year. The Outing Co., New York.

The chief papers for June are: "A Friend in Need," by Caroline Shelley; "The Invasion of the Bicycle," by Thomas G. Allen, Jr.; "Trouting on the North Shore," by W. O. Henderson; "Wheeling through West England," by Alice L. Moque; "A Fin de Cycle Incident," by E. C. Jackson; "Yale at Henley," by W. B. Curtis; "Through Virginia Awheel," by J. B. Carrington; "Military Bicycling through the Dakotas," by R. C. Cabell, U. S. A.; "Our Turf's Transition," by Francis Trevelyan.

THE REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The issue for June contains articles on "The Political Situation;" "Alaska;" "The People's Food;" "Russia and its Ruler;" and on three Western cities, St. Louis, Omaha, and Minneapolis. The Alaskan articles describe the gold fields, introduction of the reindeer, the boundary dispute, and climate and resources. W. T. Stead writes of the young Czar, and Baron Coubertin of "The Franco-Russian Alliance."

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Co., Boston.

The June issue contains: "A Vacation on a Houseboat;" "The Summer Hostelry;" "To the Onawa;" "Gossip from Gotham;" "Spring Mushroom;" "A Perfect Vacation;" "A Civilized Camping Party;" "Plant Work in connection with Cooking;" "My Strawberry;" "The Children's Table;" "Miss Parloa's Lectures on Domestic Economy;" etc.

Therapeutic Brevities.

Taka-Diastase.—I have just experienced such satisfactory results by the use of Taka-Diastase in a case of malnutrition of six years' standing, that it seems to me worthy of note. The case was that of a lady twenty-five years of age, with two children,—seemingly a happy home, and blessed with an abundance of the goods of this world, but rendered miserable by lack of digestion and assimilation. She complained of being easily irritated; pronounced hysterical symptoms developed at times; she was thin, pale-faced, and wore a look of constant annoyance; and her condition was a pitiful one, inasmuch as she had given up all hopes of being well. Pepsin, pancreatin, maltine, and all the known digestive tonics had been employed without avail.

I prescribed five-grain powders of Taka-Diastase, one after each meal for five days, at the end of which time she expressed herself as feeling better than for a long time before. I then reduced the dose to three grains after each meal, and after ten days she had so improved that the remedy was replaced by iron, quinine, and strychnine. The improvement continued until now she declares nothing that she eats entails any suffering. She sleeps soundly and is as cheerful as can be, and declares she would like to entertain the manufacturers of Taka-Diastase herself.

I have tried the remedy in other instances with pleasing results, though in none of them was the action so rapid and marked.—DOCTOR D. L. NEWTON.

Chloroform and Perineal Lacerations.—In quite a number of cases, laceration of the vagina and perineum may be avoided by a little patience and the judicious use of chloroform, especially in primiparæ. The foetal head covered and generally preceded by the bag of water makes an extremely good dilator, and ample time should be allowed for it in its passage through the soft parts. The patient can be easily controlled by being placed on her side, with back toward the physician, who makes gentle manipulation of the perineum in order to increase its distensibility. So long as she is making ordinary bearing-down efforts and the head is felt to advance slowly with each pain and recede slightly or remain quiescent in the intermission, no anæsthetic is required; but if the head continues to steadily advance without any period of rest, or if after a short, quick advance the patient makes a great outcry of pain, chloroform should be given. The anæ-

thetic has a double effect: It stops the advancing presenting part, and gives the soft tissues time to dilate. Chloroform has a more relaxing effect than ether on the vagina and perineum, and is less of a uterine stimulant; it is also more easily controlled, and by it the pain sense is diminished to a greater degree without the production of unconsciousness.—*Philadelphia Polyclinic.*

Rational Treatment of Abortion.—In cases of severe hæmorrhage and febrile disturbances occurring in the first two months, the entire contents of the uterus should be removed.—The finger or the curette, or both, may be used for this purpose; the calibre of the cervix will determine the choice of method.

In the third month, if the os uteri is not patent, tampons are at first employed. Anæsthesia is necessary for the radical removal of the product of conception. The placenta may have to be removed by means of the curette. The fœtus can generally be best taken away by slowly introducing the finger and using that alone.

In the fourth month the fœtus must be removed without the aid of the curette, although remnants of placental structure and membranes may call for the use of that instrument.

Even after spontaneous abortion the uterine cavity is to be explored and all remnants promptly removed by means of the curette.

Only very free hæmorrhage calls for the employment of tampons. They are to be introduced into the vagina only. Uterine tampons are to be avoided as much as possible.—BENICKE, in *Allgemeine Medicinische Central-Zeitung*.

Chaput's Anastomotic Button.—This is an elliptical ring made of pure tin, pierced in the centre by an elongated opening. In profile, its margins have the form of a circular gutter which measures ten millimeters long and eight millimeters deep. There are five sizes: No. 1, for cholecystenterostomy; Nos. 2 and 3, for circular suture of the small intestine; No. 4, for circular suture of the large intestine; and No. 5, for gastro-enterostomy and intestinal anastomosis. This button has the following advantages over the Murphy button: The operation is more rapid, since it is necessary to make only one hem instead of two: The largest-size button has a circumference smaller than that of the smallest Murphy, and an orifice larger than that of the largest Murphy: It does not cause sloughing of the intestine, and is, therefore, less danger-

ous: It can always be applied under good conditions, whatever the thickness of the stomach or intestinal walls may be: While the Murphy button occasionally cannot be opened, this one can be easily opened by the end of a channelled probe: Finally, it is very simple, does not present a delicate or complicated mechanism, and cannot fail to act.—*Gazette des Hôpitaux*.

The Uterine Curette.—The more I have used and seen used the uterine curette, the more I am impressed that the selection as to shape and form of the instrument in a given case is not always a wise one; that a proper knowledge of its use should be obtained before trying to use it; that it is not a cure-all. Its use should be only in conjunction with other treatment. The blunt curette (as sold in the shops) is a dangerous instrument. The curette with sharp-cutting edge, properly constructed, is most useful, and in the treatment of intra-uterine inflammatory conditions is the *sine qua non* of success. In order to secure a good scraping instrument, the sharp edge should stand at an angle of 60° to the shaft or handle; a greater angle will not scrape thoroughly, and a lesser is liable to incise the uterine wall unless used with a great deal of care. Cases of perforation of the uterine wall are on record, and I think they are due to want of care in the selection of a proper instrument. The dull or blunt curette should never under any circumstances be used.—DOCTOR DORSETT, to the American Association of Gynæcologists.

Canthotomy.—It is possible to bring a flap of the conjunctiva between the lips of the incised skin without drawing on the ocular conjunctiva. To accomplish this purpose, a puncture is made at the point of juncture of the upper and lower lids, between the skin and mucous membrane. Next one blade of a pair of scissors is inserted at this puncture beneath the skin, but not including any mucous membrane; the skin incision is then made in the usual way. Now one blade of the scissors is inserted beneath the conjunctiva, pointing down and out and at an angle of about 25° , and the conjunctival cut is made as low as possible. The flap of the conjunctiva thus procured is fastened to the upper edge of the skin-cut by means of a single suture, while the lower margin of the cut is left to granulate. The result is all that could be expected. The operation is much easier than the old method, and the result better.—*Ophthalmic Record*.

Acute Gonorrhœal Rheumatism.—I have a preference for oil of wintergreen and sodium bicarbonate, with general use of alkalies, in the treatment of this disease. The diseased joint should at once be put at rest upon a splint of such proportions that as much comfort as possible may be obtained. Gentle compression over a dressing of mercurial ointment, or an ordinary wet dressing, should be applied by bandage. If the disease seems to be manageable, gentle massage is valuable during convalescence; but if anchylosis is inevitable, it should be assisted by perfect fixation in plaster-of-paris. The indication is for forced feeding. Meat, eggs, milk and its preparations, besides other simple and easily digested food, should be forced upon the patient every two hours or oftener, and accurate record should be kept of all nourishment taken.—DOCTOR LILIENTHAL, in *Boston Medical and Surgical Journal*.

Bromohydrate of Arecoline.—This alkaloid of the areca nut has a powerful sialagogue and diaphoretic action, and markedly stimulates intestinal peristalsis in horses and other animals. It has the same properties as eserine and pilocarpine, but in higher degree, and the indications for its use are the same. Given hypodermatically in doses of one-thirtieth to one-sixth grain it is found useful in animals, especially in the treatment of intestinal indigestion. Areca nut, though exclusively employed in veterinary practice, might be worth trying on the human subject, but it would be prudent to begin with very minute doses; it is said to be a powerful anthelmintic, the administration of which does not require to be preceded by a purge. It can be taken in milk or in soup without any unpleasant taste being perceived.—*Nouveaux Remèdes*.

Umbilical Hernia and Eventration.—At the last Reunion of Polish Surgeons, in Cracow, Volkowitch stated that in umbilical hernia he uncovers the internal portion of the two rectus muscles, cuts them, and rejoins them in such a way that they cross each other.

To remedy eventration, he proposes shortening and crossing of the lineæ albæ of the recti. In this way both the transverse and longitudinal dimensions of the abdominal wall are shortened. To prevent hernia and eventration following operations upon the abdominal cavity, he proposes to make the cut, not through the linea alba, but across one of the recti, for the reason that a muscular cicatrix is far more solid than one of the connective tissue.—*Kronika Lekarska*.

How to Tap.—I have known medical men of ripe experience to make a failure of tapping, owing to non-penetration of the lining membrane of the cavity operated upon, said membrane being pushed ahead of the trocar. This is apt to occur every time unless the trocar is given a decided plunge. No harm can accrue to observance of this caution, and thereby chances of failure are prevented.

A mixture of a four-per-cent. solution of cocaine and carbolic acid should be injected subcutaneously at the point where the operation is to be made; then after five or ten minutes it is advisable to make a small incision through the skin, following which the trocar and cannula may be plunged into the cavity with a quick but strong movement.—*Eclectic Medical Journal*.

Potassium-Iodide Coryza.—The coryza, sore throat and frontal headache attending the administration of potassium iodide are due to the action of free iodine, secreted by the salivary glands, or liberated from the salt in the mouth after its secretion,—the latter view is supported by Schmeideberg, who showed that potassium iodide in the presence of carbonic acid is decomposed, the latter being abundant in the expired air in the region of the salivary glands. In three well marked cases of iodism the catarrh was successfully checked by adding to the mixture, which consisted of ten grains of potassium iodide in half an ounce of water, five minims per dose of tincture belladonna.—COHEN, in *The Lancet* (London).

Hydrocele.—The method is very simple. Withdraw the fluid by means of an ordinary exploring syringe, leaving the needle in place. Fill the syringe with a ten-per-cent. solution of iodoform in ether, connect with the needle again, and inject to the amount of from 45 to 120 minims, in such a manner that the fluid may come in contact with the whole of the sac. The injection should be made as quickly as possible, so that the ether will not become overheated. After coming in contact with the tissues, the ether boils, and diffuses the iodoform throughout the whole sac. There is but little pain, and the operation is very effective.—*Omaha Clinic*.

Otitis Externa or Media.—Dissolve thirty grains of boric acid in fifteen drachms of water, then add from one to two drachms of tincture opium. Heat a teaspoonful of this mixture, and when sufficiently warm (without being hot enough to scald the tip

of the finger) pour into the ear, the patient being ordered to bend his head toward the other side, and to keep it in for from ten to fifteen minutes. To empty it out, the patient covers his ear with a napkin or handkerchief and shakes his head gently, bending it over toward the injured side. This procedure may be repeated as often as required to allay the pain.—*Lancet* (New York).

Anæmia.—Grave cases of anæmia may be successfully treated by simultaneous use of subcutaneous injections of iodine and of iron. For this purpose, I use a solution of three grains of iodine in 300 grains of distilled water, adding sufficient potassium iodide to effect solution; also a solution of fifteen grains of iron-and-ammonium citrate in 300 grains of water. An injection is made once or twice daily into one thigh with the first solution, and another into the other thigh with the second solution. In this manner the therapeutical effects of the remedies are promptly manifested.—MENNELLA, in *La Semaine Médicale*.

Administration of Santonin.—The moment the drug appears in the urine it becomes dangerous; when within two hours after a dose of santonin the urine takes a red color on the addition of potassium solution, the danger is imminent. This test can be employed to detect a slight degree of intoxication and prevent chronic or sub-acute poisoning. If santonin is followed by a purgative to evacuate the ascarides for which the vermifuge is given, there will be no necessity to give large doses.—*Bulletin Médical du Nord*.

Diffusible Stimulants.—Carbonate of ammonia is commonly employed, but is a decided irritant to the stomach, and if long used it impairs nutrition and thereby becomes detrimental to the heart. The aromatic spirit certainly possesses the same advantages as the carbonate and does not produce the unfavorable effect on digestion that the latter does. Inhalations of oxygen are beneficial, but the quantity required and the expense make its use limited.—*Pittsburg Medical Review*.

Poisoning by Cocaine.—The best antidotes for cocaine poisoning are ammonia and amyl nitrite. I give a drachm of aromatic spirit of ammonia in two ounces of water, and, bearing in mind that the act of swallowing removes the inhibitory action of the vagus upon the heart for the time being, I order this

draught to be slowly sipped. This usually suffices to remove the temporary discomfort. If not, I let the patient lie down for a few minutes.—HAVILAND HALL, in *The Lancet* (London).

Chlorine for Pruritus Ani.—A piece of cotton wool is soaked in a strong solution of ordinary chloride of lime and introduced into the anus. As soon as a slight burning or smarting is experienced, the cotton plug is removed, and the anal region, internal and external, washed with the solution, and afterward left to dry spontaneously. This method is said to remove the itching very quickly, after which the eczema and swelling soon disappear.—BERGER.

The Neglected Study of Therapeutics.—It is a strange fact that among the society meetings the past year, almost no place was given to scientific study of therapeutics. Do doctors care nothing for therapeutics? Is there no field for discussion in the consideration of drug action? Have the proprietary medicines "killed" the science, and the desire for discussion, of therapeutics? It would seem so.—*Kansas Medical Index.*

Caffeine.—Caffeine is a valuable remedy in sustaining the heart in pneumonia. The use of this drug, I think, is not fully appreciated. In one case of impending heart-failure, I am satisfied caffeine was superior to digitalis. I prefer the alkaloid in large doses (eight to twenty grains daily), continued for a day or two until the emergency is past.—S. J. MOVER, in *Pittsburg Medical Review.*

For Lumbricoids.—

- ℞ Fluid extract spigelia, 10 drachms.
- Fluid extract senna, 6 drachms.
- Oil anise, 20 minims.
- Oil caraway, 20 minims.

Give two or three times daily according to age, say a teaspoonful for a child of from four to ten years, and half the amount for one of two years.—TOWNSEND.

Alcohol in Fevers.—If the tongue becomes dry, discontinue; if more moist, the drug is doing good. If the pulse becomes quicker, harm is being done, and the contrary if slower. If the skin becomes more moist, the antipyretic effect of alcohol is being obtained, and again good is being done. If the breathing becomes easier, continue the drug.—ARMSTRONG.

Use of Creosote.—Occasionally it is better to use a smaller amount of this agent when it is not well borne by the stomach. A full teaspoonful of the emulsion may be given three times a day, after feeding. This preparation seems to be readily tolerated by the stomach, even when the latter is quite irritable.—*Philadelphia Polyclinic.*

Endocarditis.—As soon as the heart-sounds in acute articular rheumatism begin to grow muffled, or a bruit is detected, besides salicylates give ten grains of potassium iodide three times daily. Also apply fly-blister over the apex and along the course of the fourth, fifth, and sixth intercostal nerves.—*La Semaine Médicale.*

Facial Neuralgia.—

- ℞ Oil peppermint, 1 ounce.
- Aconite, 4 drachms.
- Chloroform, 4 drachms.
- Alcohol, 4 drachms.

Apply with a camel-hair pencil.—DR. RELYEA.

—*Dominion Dental Journal.*

Sulphur in Chlorosis.—In true idiopathic chlorosis, where iron is ineffectual, sulphur will produce a marked amelioration. After using sulphur, iron can again be resorted to, and it becomes very beneficial.—SCHULTZ, in *Medical Times* (London).

Hæmoglobinuria.—This may arise from the toxic action of certain drugs, such as phosphorus, carbolic acid, chloral, or potassium chlorate. It is present also in typhus, purpura, and pyæmia.—HOLLAND.

Rhus Toxicodendron.—This agent is recommended as an efficacious remedy in sciatica and other forms of neuralgia occurring in individuals with rheumatic tendency.—*American Medico-Surgical Bulletin.*

Acute Laryngitis.—For the relief of the distressing cough, three to five grains of Dover's powder, every three or four hours, may be administered.—J. C. WILSON.

Itching of Eczema.—Apply locally the fluid extract of jaborandi.—*Medical Times and Hospital Gazette.*

Parotitis.—Turpentine is said to be a specific.—*Medical Summary.*

Medical Progress.

EXOPHTHALMIC GOITRE.—Graves' disease is not endemic, like bronchocele or simple goitre, but is worldwide, with little or no reference to heredity. Its onset is frequently traced to some violent emotion or fright. The disease, to be complete, should evince palpitation, enlarged thyroid gland, and protrusion of the eyeballs; yet any one or more of these symptoms may be absent. The middle cervical ganglia of the sympathetic are given as the seat of the disease,—ganglia that send nerves to the bottom of the orbit, the thyroid gland, and the heart. The coronary arteries become dilated, and the heart receives more nourishment than usual, and there is palpitation and enlargement. This enlargement is due to the palpitation and the extra blood-supply. The palpitation is usually the first symptom. After some violent mental emotion or shock the heart-beat goes up from 70 to 120 or 150. At this stage the disease may be arrested and no other symptoms appear. After a time, in most cases, the thyroid gland begins to enlarge either on one side, or evenly on both sides, due to the dilated vessels and infiltration of the gland tissue. The vessels in the neck pulsate forcibly, owing to their dilatation from vaso-motor disturbance. Lastly, the eyes bulge forward gradually, or they may become prominent in a few hours.—This protrusion is due, in most cases, to increase of fat in the orbit and dilatation of the vessels, and the dilatation may be so great as to prevent closure of the eyelids. There is a spasm of the levator muscle; and for this reason the upper eyelid does not follow the eye in looking downward. The symptoms of anæmia usually are present, as shown by pallor and hæmic murmur. The prognosis is now much more favorable than formerly, since more cases recover than die. In the worst cases death comes on after many years, from exhaustion, anæmia, and malnutrition.

In treatment, electricity is only a waste of time, and ergot and strophanthus are never of service, except the latter may sometimes be employed when digitalis cannot be borne by the stomach: strophanthus *per se* has no influence over the disease. Thyroid extract is another useless substance. Meat-juice, milk and beef-tea are better. For the control of the heart, no drug yields such good results as digitalis. If the heart beats with great violence, veratrum may be ordered. The chief remedy is potassium iodide, which goes to the very root of the malady; it aids in the absorption of superabundant tissue—

the enlarged gland, the fat in the orbit,—lessens the vaso-motor disturbance, and slows the heart. The anæmia may be treated with arsenic or iron; the former acts also as an alterative and assists the iodide. The general regulation of the diet, bowels, and hygiene of the patient, must be looked to.—PAGE, in *New York Polyclinic*.

CHINESE METHODS OF PREDICTING THE SEX BEFORE BIRTH.—A round, prominent abdomen projecting forward so as to interfere with locomotion indicates a girl, while a uterus extending very high upward means a boy. A fresh color of the skin, with only slight pigmentation, especially of the areola, and slight change in the features, points toward a girl; the opposite condition to a boy. Violent movements at the fœtal extremities also indicate a girl. When after the seventh month the right hand of the fœtus can be felt moving in the left side of the mother's abdomen—there may be some doubt about the mother's ability to distinguish the right hand of the fœtus from the left—it is male. The most interesting methods cited are two which point to a very high development of the mathematical faculty among the Chinese. The first depends upon the second figure of the mother's age and the probable month of conception. If both figures are odd or both even, the child will be a boy. If one is odd and the other even, a girl is expected. The most complicated method of all was published in 1593, by the wise man, Fschweng-Fa'wei: To the number 49 (evidently a number regarded as sacred) add the number of the month of conception, and from the sum subtract the age of the mother; then subtract 1 (for the heavens), 2 (for the earth), 3 (for mankind), 4 (for time), 5 (for the elements), 6 (for the musical scale), 7 (for the plants). If the remainder is an odd number, the child will be a boy; if even, a girl. If the remainder is larger than the number 8, that number is also subtracted (for the directions of the wind), and the decision made according to the final remainder. Even European residents of China believe in this method.—J. J. MATIGNON, in *Archives de Tocologie et de Gynécologie*.

PSYCHOSES OF OLD AGE.—Many individuals become victims of certain psychoses when they attain a certain age, although there may have been no sign of mental troubles previously.

The psychoses most often observed are, in the order of frequency, melancholia in its

various forms, especially simple and anxious melancholia; mental confusion; mania; moral insanity; systematic delirium.

The melancholia with anxiety is the one most clearly defined by the constant agitation, distraction, violent impulses, refusal to eat on the pretext that they are forced to eat human flesh or decomposed meat, etc.; there is a tendency to obscenity, insomnia, etc.—This form is the most easily relieved.

The delirium with the idea of persecution is sometimes present and is aggravated by visual hallucinations.

The systematic delirium is the same as in adult age, in its cohesion, activity, and persistency: this is probably due to a mental decay, and is a sort of senile dementia.

A deliriant manifestation frequently observed in the aged is erotomania; in cases of simple mania, melancholia, and systematic delirium, one often finds a superactivity of the erotic sense, which will be manifested in obscene words, gestures, and acts.

The study of physical diseases and somatic symptoms is very important in all cases of psychoses of the aged; circulatory troubles and cardiac and renal lesions are very frequent and have a causal relation; the frequency of mental confusion and obtuseness is due to auto-intoxications (uræmia?).

The psychoses have been laid to heredity, to the changes incident to old age, etc.

The prognosis of most of the psychoses is fairly good — A. RITT, in *Revue Internationale*.

TO RECOGNIZE EYE-STRAIN.—Eye-strain has been “harped on” for so long by the specialist—more so than reflex neuroses by the officialists—that people are either beginning to be disbelievers, or are getting tired of repetition. Nevertheless, eye-strain is always with us—many cases in every-day practice—but the fortunate part of it is that it is easily recognized.

Patients suffering from eye-strain frequently have headache, the pain being located in the eyeballs and in the frontal region.

Headache from nasal disease is more likely to be in the morning on awakening, while headache from eye-strain comes on later in the day, after having used the eyes.

Irritation of the eye is an indication of eye-strain; the patient complains of burning, itching, and frequently of watering of the eyes, having used them for some close work, such as reading or sewing.

Recurring styes and chalazions, if not clearly traced to some general dyscrasia, are almost always due to eye-strain.

In persons between the ages of forty and

fifty, drawing in of the eyes, lids running together, inability to use the eyes at night, are the first symptoms of presbyopia, commonly called old-sight.

The fact that a person has perfect sight is no criterion of the case, for nine-tenths of all the glasses adjusted are for all these unpleasant symptoms grouped under the term *asthenopia*.—*American Medical Journal*.

DOSAGE EXTRAORDINARY.—When Chuneé, the celebrated Indian elephant, fell sick, it was decided that he was suffering from constipation, and, after thirty-two hours' coaxing, he was induced to swallow his first dose, which consisted of *twenty-four pounds* of sulphate of magnesia, an equal quantity of treacle, *six drachms* of calomel, *ninety grains* of tartar emetic, *six ounces* of gamboge, and an *ounce* of croton oil. This produced no more appreciable results than an ordinary bun would have done. Six pounds of beef marrow with four drachms of calomel were then administered, but absolutely without result; and Chuneé became so violent that it was decided to destroy him. All attempts to get him to take the dose consisting of *forty drachms* of arsenic, with *thirty grains* of corrosive sublimate and a *drachm* of strychnine, were unavailing, and the aid of expert marksmen and finally of the military had to be called before he could be disposed of. It took 260 rifle balls to kill him. And, behold! at the autopsy it was found that Chuneé had been driven mad with a toothache. One of his enormous tusks was extensively decayed, and the diseased tooth, a specimen of “*mal aux dents*” on a very large scale, is preserved with the skeleton of the beast at the South Kensington (London) Museum.—*Chemical Recorder*.

CREPITUS IN BONE TUBERCULOSIS.—Fenger describes a case of joint tuberculosis in which, it having been determined to evacuate the abscess and use iodoform treatment, the patient was anesthetized. During the application of the anesthesia the usual nervous tremor occurred, and a sound could be heard all around the operating-table resembling the chattering of teeth, or the noise made by sliding a stick along the palings of a fence, or a cane in the spokes of a wheel in motion, or a woodpecker hammering a tree-trunk, as those surrounding the table variously described it. When the femur was moved with the hand, a similar crepitation was heard as when two eburnated surfaces are pushed together—a sound like the click of billiard

balls. The plan of aspiration and iodoform emulsion could not be carried out, and after the patient's consent had been obtained the joint was opened and the sequestra removed. Fenger cites another case, occurring in Mercy Hospital, Chicago, in which the same symptom was noted. It is probable that this symptom will occasionally be of use in diagnosing the presence of eburnated sequestra in tuberculous joints.—*Annals of Surgery*.

TUMORS OF THE SUPERIOR MAXILLARY.—These growths are often very insidious in onset, and may be far advanced before the patient is aware of their presence. They commonly commence in cavities quite inaccessible to exploration, and are only manifest when they begin to encroach on the skin or mucous membrane.

In all cases in which a deep-seated tumor of the superior maxillary is suspected, the nasal passages, the vault of the palate, the pharynx and post-nasal space alike should be carefully explored. When the configuration has altered and the osseous walls impinge, by the use of the needle it will be found that the bone has become more vascular and is much more friable than normal.

From the prognostic point of view, sarcomata with small cells are the most malignant; those with intermediate, hyaline substance are less so; the fibro-sarcoma with giant cells the least. The endotheliomata progress slowly and often undergo cystic changes, and are but slightly malignant. Epitheliomata here are no less malignant than sarcoma.—M. HAMMER, in *Gazette Hebdomadaire de Médecine et de Chirurgie*.

PREGNANCY WITH UNRUPTURED HYMEN.—In two cases there was a protracted second stage due to the resistance of the hymen, which was perfect and very elastic. After crucial incision the foetus was at once delivered; in one case the child was lost. In the third instance the patient appeared to be in the seventh month of her first pregnancy, and suffered from severe pains in the genital tract; although she had twice been operated on for atresia of the hymen, the vagina was still closed by a firm, impermeable and tender membrane. The latter was excised, when the pains disappeared and the pregnancy continued and ended naturally. A patient with a bifenestrated hymen, where the openings barely admitted a hair, reached the third month of pregnancy, and abortion was induced in a manner which could not be ascertained. In considering these cases, one may

note how the alkaline uterine mucus, poured out during orgasm, protects the spermatozoa from destruction by vaginal mucus.—GUERARD, in *Centralblatt für Gynäkologie*.

EXPERIMENTAL STUDY OF PANCREATIC DIABETES.—Chabad has removed the pancreas in animals, and in each case it has produced acute diabetes mellitus. Partial removal only produces symptoms similar to those of diabetes insipidus. The removal of a larger portion causes slight diabetes mellitus, and of the entire pancreas the acute form. He concludes that the pancreatic diabetes thus produced is entirely due to the removal of the pancreas, and not to any functional disturbance in other organs. The blood loses its alkalinity in this diabetes; and when the pancreas, which supplies alkali to the blood, is removed, the blood ceases to be alkaline. The favorable effect of alkalies in diabetes can thus be explained by these experiments on animals. They have fully established the fact of the existence of pancreatic diabetes.—*Gazzetta degli Ospitali*.

CEREBELLAR ABSCESS FROM CHRONIC SUPPURATIVE OTITIS.—After an attack of influenza in a child aged twelve years, a chronic otorrhœa suddenly ceased, and pain, fever and delirium supervened. The antrum and subdural space were opened, and pus evacuated from both, giving great immediate relief with descent of temperature to 98.5°. Two nights later coma supervened, without paralysis, but with trismus such as to render swallowing very difficult. In spite of change of dressing and irrigation, death took place. A large abscess was found in the corresponding lobe of the cerebellum. I believe that if, after trephining the antrum with amelioration of symptoms, cerebral disturbance comes on, in the absence of localizing signs the cerebellum should be explored.—MONNIER, in *Archives Internationales de Laryngologie*.

ADHERENT PERICARDIUM.—Visible retraction, synchronous with the cardiac systole, of the left back in the region of the eleventh and twelfth ribs, and systolic reaction of less degree in the same region of the right back, I have noted four times. In cases of large heart with adherent pericardium, there is a considerable area of the ventricle closely adherent to the central tendon of the diaphragm, and the powerful contraction of a hypertrophied heart must give a decided tug to this struc-

ture. That it should affect the ribs more often on the left side ought to be expected, since the adhesions are mainly to the left of the median line, while the liver, which is often large in these cases, may restrain the movement on the right.—BROADBENT, in *Boston Medical and Surgical Journal*.

UTERINE CANCER.—The diagnosis of uterine carcinoma is not very difficult in the majority of cases. It is by no means always associated with cachexia, a miserable pale aspect, suffering expression of the face, frequent hæmorrhages, discolored and fœtid discharges, as the majority of text-books would lead one to believe; but a serous discharge, a bleeding between menstrual periods, and especially a hæmorrhage after the menopause, should make one very suspicious of a malignant disease. I strongly deprecate the practice of giving ergot or styptics in uterine hæmorrhages when there is a suspicion of carcinoma, because while using these drugs the disease is progressing and valuable time is lost.—KESSLER, in *St. Petersburger Medicinische Wochenschrift*.

WOMEN AND THE BICYCLE.—Lawson Tait emphatically condemns bicycling for women. The harmful influence which this exercise has is dependent upon its being overdone, the general health suffering, or upon faulty position and imperfect construction of the saddle, local diseases being thus produced. Women who have disease of the genital organs should not be allowed to ride a bicycle, since it causes hyperæmia of these parts and thus accelerates the disease. A large number of French gynæcologists believe bicycling is a leading factor in disturbances of nutrition, in neurasthenia, hysteria, chlorosis, dyspepsia, chronic constipation, anæmic amenorrhœa, and nervous dysmenorrhœa.—*La Province Médicale*.

PSEUDO-PERTUSSIS.—A child had swallowed a small pebble, which could not be found. Next night it had a typical attack of laryngismus stridulus, and for four months suffered from apparently severe whooping-cough. The other children escaped entirely, and the affection disappeared at once on the accidental expulsion of the small pebble during a severe attack which came on while the child was playing roughly with its father. The stone must have been in the ventricle of the larynx, and much suffering might have been spared

if the physician under whose care the child came had made a laryngoscopic examination.—DE PRADEL, in *Archives Internationales de Laryngologie*.

GALL-STONES AND ROENTGEN RAYS.—In a recent number of *The Lancet* (London) is given an interesting Roentgen photograph taken through the body of a dead monkey. In the right kidney had been placed a uric-acid calculus, and in the left kidney a gall-stone. The interesting point is that the uric-acid calculus shows plainly by the new process, while the gall-stone can hardly be distinguished from the surrounding tissues. This observation seems to show, if it shows anything, that the value of the new process in differentiating biliary lithiasis from malignant disease would not be great.—*Boston Journal*.

CAUSE OF VARICOCELE.—Anything that impairs the general vigor of the part, as lack of proper support from relaxed scrotum, masturbation, abuse of venery, ungratified desires, chronic orchitis, or repeated attacks of acute orchitis: Anything that produces pressure, as abdominal tumors, enlarged inguinal glands, hernia, trusses or belts worn around the waist, accumulation of fat in the omentum and mesentery: Anything that produces prolonged muscular effort, as riding on horseback, rowing, exercise in running or waltzing, excessive and violent muscular effort, and sometimes whooping-cough.—RAND, in *Medical Record*.

COXA VARA.—Professor Ogston, of Aberdeen, gives this name to a peculiar affection of the thigh, of which he has been taking notes for some years, and which has been independently studied by some German surgeons. It is liable to be confounded with hip-joint disease, but is an affection of the neck of the femur, which becomes curved, its concavity upwards, so as to cause abduction and apparent lengthening of the limb. Doctor Ogston gives some cases, with examinations and illustrations.—*The Practitioner* (London).

DAMAGE SUITS FOR STREAM-POLLUTION.—A number of such have been instituted at New Britain, Connecticut—some fourteen in all. The city paid \$2,456 in 1895 in settlement with four property-owners. It might be well for the sewer commissioners to investigate sewage-purification.—*Herald*.

The Medical Age.

VOL. XIV.

DETROIT, JUNE 25th, 1896.

No. 12.

Original Articles.

WHAT IS THE MOST PRACTICABLE PLAN OF SANITARY ORGANIZATION FOR ACTIVE SERVICE IN THE UNITED STATES ARMY?

BY MAJOR JOHN VAN RENSSELAER HOFF, SURGEON U. S. ARMY.

It does not admit of dispute that the sanitary *personnel* and equipment provided for the care of the sick and wounded are, as they are often declared to be, an encumbrance to the fighting parts of an army. But it should be remembered that the sick and wounded are doubly so: on the one hand they weaken an army by lessening its numbers in their own persons; on the other by abstracting healthy men to attend upon them. The unfavorable moral influence which the presence of a body of disabled men always exerts, especially when their necessities are more or less disregarded, should not be forgotten. Therefore the disadvantages attending the having of the means necessary for diminishing the accumulation of the sick and wounded near the scene of action, for ministering to their necessities and hastening their restoration to efficiency, must be balanced against the advantages arising from the employment of those means. But beyond this the troops have a right to the best precaution which can be taken for their protection as well as for the safety of their lives, should they become endangered by wounds or sickness received in the service of their country. This is a right which has always been conceded by the greatest commanders as well of ancient as of modern times. (Longmore.)

But the sanitary department of an army is not alone a concession to humanity; it is recognized as a military necessity, and as such its perfecting in our service demands of us the most careful consideration. A glance at the sanitary organizations of the armies of the world shows that in principle they are practically identical, but that in details they differ materially. In some of the great Continental armies which are all standing at the "ready," watching each movement of the neighboring nations, with everything—down

to the last strap—prepared for instant mobilization, certain of the work of the direct management and instruction of the field sanitary *personnel* is taken off the already over-weighted shoulders of the medical department, and the duties of the latter are more closely confined to strictly professional work.

The advantages of such an arrangement under existing conditions are certainly many, the chief of which is that medical officers are comparatively few and correspondingly precious, and therefore should be permitted to devote themselves to work that requires special aptitude, training, and experience, possessed by only a small number in any community. But it goes without saying that in order to the successful working of the sanitary department, it must be under the control and direction of its own officers. Strange to say, this is a moot point with the military authorities, generally denied in peace and always conceded in war.

In the armies of France, Germany, Austria, Italy, Russia, Switzerland, and Great Britain, every battalion or other military unit has its own medical officer, but only in Russia is the regimental sanitary *personnel* permanently attached; in the other armies the medical officers interchangeably do regimental and departmental work—in a word, they belong to a distinct department or so-called Staff Corps. Regarding the question of interior economy, management of *personnel*, etc., there is a wide difference. In the Austro-Hungarian Army, for example, the *Arzt* is a physician pure and simple, with practically no other function, while in the French Army the medical officer has command over his department in every respect. The development in the other armies is essentially in the direction of the French, which stands for autonomy, and away from Austria, where the medical officer, as such, cuts but a small figure.

While indeed, as aforesaid, the European armies, being always in expectation of war, are always ready therefor, it must not for a moment be presumed that the sanitary department is in peace maintained in a full state of preparation for active service; on the contrary, this department is organized—of course on active-service lines—to meet peace requirements, with material always in store equal to the early demands of war. The passage from the one condition to the other is simple, for the garrison hospitals, etc., of the peace stations, which upon the outbreak of hostilities become the general hospitals of the army, are manned by medical officers and men of the reserves or by civilian practitioners and nurses, thus freeing the active *personnel* for field duty, it being understood that the latter alone are specially trained in this important military work.

In campaign the lines of assistance are to all intents and purposes the same in every service. Indeed, this could not well be otherwise, as organization is the result of experience, and the best organization is one which by common consent produces the best results.

The Regimental Sanitary Detachment.—The first line of assistance embraces the regimental aid, and it must be remarked that this seems to be regarded in most European armies as of an importance not attached to it in the British or apparently our own service. It will be observed that the French and Swiss have *Infirmiers*, the Germans *Lazareth-Gehülphen*, the Russians *Feldshers*, etc., a permanent part of the regimental cadre—these in addition to the so-called company bearers, who, though an important part of the sanitary reserve, are for use only in emergency. During the War of Secession, as we learn from United States regimental records, a certain number of men were detailed from the companies to extra duty in the regimental hospitals under a paragraph of Regulations which remained in force until the organization of the Hospital Corps in 1887.

From the foregoing it will be seen that, of the armies mentioned, the British alone have no permanent battalion (regimental) sanitary organization, each of its military units having a medical officer temporarily attached, who in the field is assisted by two company bear-

ers from each company. The duties of this very temporary and apparently inadequate organization are presumed to be confined to the extreme first-line work. Doubts of its efficiency have already been expressed by some of the medico-military authorities of that service, and it is not believed it will outlast a single severe campaign.

Still, so high an authority as Longmore writes that "The system of each regiment taking with it a hospital establishment of its own into the field is an impracticable one in a modern campaign. Independently of the waste in a system which leads to an unnecessary multiplication of articles when a less number would suffice, it has become impossible for troops moving in the field as quickly as they now do to take such bulky stores with them."

Colonel Joseph R. Smith, U. S. Army, says: "Cases are conceivable when certain advantages may render the regimental system of hospitals in an army the most desirable . . . but economy and efficiency of administration are always with the system of division hospitals."

Back of the regimental aid we find in every service an organization corresponding to the bearer company of the British—variously called, but identical in function—and which is in effect the essential feature of modern military sanitation. This organization establishes the collecting and dressing stations, is supplied with an ample sanitary equipment, and has attached to it wagons of various kinds manned and horsed by the transport service.

Back of this are the field hospitals, and yet further back the lines of communication and base hospitals which may be said to complete the sanitary organization of an army in active service.

A glance at the history of our sanitary department cannot fail to impress upon us the fact that whatever successful sanitary organization we may have had—and certainly in the closing years of the war it was very successful—was the result of dearly bought practical experience on the battle-field, and as such should be highly prized, for no one's experience is so valuable to us as our own. We have but to compare the regulations of 1861 with those of 1865 to obtain a very clear

idea of the development of sanitary organization under active-service conditions. Nor can we fail to commend the wisdom of the then medico-military authorities in having the results of this experience embodied in a law which is not subject to the mutations of army regulations. It is not pertinent to the subject of this paper to in anywise enter upon the general question of Army Organization, or the particular circumstances which influenced that organization with us in 1861-1865, except so far as, if possible, to determine the strength of the fighting unit upon which that of the sanitary unit depended. We find that the average strength of a regiment of infantry was five hundred men and thirty-nine officers—of which number, three were medical officers and one a hospital steward. Except these last named, there was no permanently attached sanitary *personnel*, all others on duty in this department being detailed from the fighting effective in accordance with a regulation which reads as follows:

Ordinarily, hospital attendants are allowed as follows: to a general hospital one steward, one nurse as ward-master, one nurse to ten patients, one matron to twenty, and one cook to thirty; to a hospital where a command exceeds five companies, one steward and ward-master, one cook, two matrons, and four nurses; to a post or garrison of one company, one steward and ward-master, one nurse, one cook, and one matron, and for every two companies more one nurse; at arsenals where the number of enlisted men is not less than fourteen, one matron is allowed. The allowance of hospital attendants for troops in the field will be, for one company, one steward, one nurse, and one cook; for each additional company, one nurse; and for commands of over five companies, one additional cook.*

This elastic regulation is important because it was based upon practical experience covering all conditions of service, was promulgated during our great war, and certainly cannot be ignored in any effort to determine the number of men necessary to the successful working of the first three lines of battle-field sanitary assistance, with which this paper has to do.

From this regulation it is seen that, based upon a strength of ten companies (500 effectives), our regimental sanitary detachment in 1861-1865 ordinarily contained, exclusive of

medical officers, one hospital steward and twelve privates (ten nurses and two cooks).

Comparing this with the regimental sanitary organization of other armies, as set forth in the subjoined table,* it will be found that the allowance is extremely liberal—far beyond that of any other army, so far as the strength of the regular sanitary detachment is concerned. But we must recall that during the war of 1861-65 there were no company bearers, these important emergency-sanitary soldiers having no existence under that distinctive title, though bandsmen and company musicians were used as such. We must also recall that the divisional field hospitals had to be manned through extra-duty details from the regiments of the division, and it is reasonable to assume that these were included in the allowance above set forth; indeed, we learn from the Medical and Surgical History of the War that "three men" (cooks, nurses, etc.) were detailed for the occasion from each of the regiments of the division.

As in future wars it is to be presumed that the field hospitals will have an independent *personnel*, any demand from this source can here be ignored, and the three men provided therefor eliminated, thus leaving the strength of the detachment one hospital steward and nine privates, of whom two should be acting hospital stewards. This, in theory at least, seems to be an efficient detachment; but as a matter of fact it is, even with this deduction in strength, considerably beyond that of any other army. A regimental sanitary *personnel*, based upon the average (per thousand men) of all armies, is, in round numbers: two medical officers, one hospital steward, six privates,

*REGIMENTAL SANITARY ORGANIZATION PER 1000 OF STRENGTH.

Army of—	Medical Officers.	N. C. O.	Privates, etc.	Co. Bearers.
Russia.....	1.25	1	5.75	14
Italy.....	2.33	1	4	16
Switzerland....	2	2	2	12
France.....	1.33	1	3	17.33
Germany.....	2	..	4	8
Austro-Hungary	2.66	..	2.66	13.66
Great Britain ...	1	1	..	20
United States ...	6	1	24	40
Average per 1000	2.32	.9	5.68	17.62

* Regulations, 1863, ¶ 1294.

and ten company bearers. This, it will be observed, is much less than our own war strength on paper, but it is probable that in actual practice it is a close approximation to the number which were or will be on this duty.

In view of what has heretofore been said upon this subject, doubtless it will be asked: Why is any permanent regimental sanitary organization whatever necessary? And, as stated, the British evidently think none is, since they have none; but all other nations have, and it might seem that British experience even has justified its retention. We learn that in the Peninsular War the idea that every regiment should, while in camp or on the march, take care of its own invalids, was carried out with the greatest advantage to the service. "During the ten months interval between the siege of Bruges and the battle of Vittoria, 95,348 sick and wounded passed through the regimental hospitals, and yet by the assiduous care of the medical officers there were only 5000 sick on the eve of the battle, the ranks being recruited by convalescents who had been properly treated and returned to duty." The regimental dispensary saves many a man to his company who, had he been transferred to sanitary establishments further to the rear, would have been lost to the service.

Moreover, since the question under discussion is, What is the most practicable plan of sanitary organization for us, in an army made up of volunteers as ours must be, the desirability of the regimental hospital can hardly be questioned, but its function as a dispensary for the treatment of mild, short cases should be clearly understood, since the regimental medical department must be as mobile as any other part of the regiment.

The duty of this detachment on the battlefield would be to establish and maintain the regimental aid station, etc.

The *matériel* of the regimental dispensary differs somewhat in different armies, as does the management thereof and of the *personnel*. We find, for example, that in the Army of Russia, in peace or war, the regimental medical units are completely organized, and that the *matériel*, tentage, etc., which always accompanies the fighting organization (numbering 4000 men) to which it belongs is transported

in four one-horse carts, and that besides these there are four ambulance wagons, each drawn by four horses, and a two-horse wagon to carry thirty-two stretchers, two per company (250 men).

It would seem that this is too extensive a scheme of regimental organization, when we consider the whole plan of modern military sanitation, but it readily permits of expansion from the regiment outward. In the Army of Germany a medical-stores wagon is attached to each regiment (3000 men), and so we find it in most armies. There is no authority immediately at hand which indicates the amount, if any, of transportation furnished our regimental sanitary departments during the war of 1861-65, but regulations of later date, since changed, allowed one wagon to each regiment; nor is there anything to indicate of what the *matériel* consisted. This is not surprising when we consider the peculiar condition of organization then obtaining, and the fact that the strength of any military unit—company, regiment, brigade, division, or corps—was an extremely uncertain quantity. Such is equally the case to-day, and is likely to be in any war we may have in the near future. In this view of the situation it would seem that any practicable solution of the question under discussion must be based so far as possible on numbers, rather than upon so-called military units. How thoroughly this fact impressed itself upon our then medico-military authorities as the result of that war, is seen in the extremely elastic organization outlined in the law of March 11th, 1864.

There seems, however, to be no question in the minds of most of the foreign military authorities, at least, that some sort of a permanent sanitary organization must be attached to each regiment, and that the *matériel* necessary to its efficiency must have special transport.

Of what should the *matériel* consist?

The field equipment now furnished by the Medical Department, U. S. A., is based upon the average demands of a thousand men for sixty days, and is believed to be adequate. Its constituent parts are fully set forth in the Standard Supply Table of the Medical Department, and their selection resulted from the large experience of our own officers, together with the combined experience of the

medical officers of other armies of the world as set forth in the official publications thereof. This equipment is certainly not perfect, but I doubt not it is the closest approximation to perfection that exists in any army.

The canvas allowance to a regiment, as published in General Orders, War Department, Adjutant-General's Office, 1895, is: three hospital tents and one common tent. While undoubtedly this allowance is based upon practical experience, since the time when that experience was gained the conical-wall tent has been introduced, and because of its extreme convenience may well be made a part of the hospital canvas; it will accommodate quite as many as the hospital tent, requires much less room in transportation, is easily pitched and heated, and altogether for a flying hospital has much to commend it.

It would seem that the official allowance of canvas is liberal for regiments brigaded and behind which is the divisional field hospital, but it certainly is not beyond the hospital requirements of 1000 men. Nevertheless, in war, it is not believed that at the utmost the actual regimental allowance will exceed one hospital and one conical-wall tent. Nor could the proposed regimental hospital corps detachment alone well manage more than this. How this dispensary—for such I shall hereafter designate it—is to be furnished, is an interesting question.

The folding field furniture issued by the Medical Department to-day, except the mess (operating) table—certainly the best folding table I ever saw—and the desk, is too bulky for transportation and could form no part of the equipment of a regimental dispensary.

One hand-litter per company must be provided and transported by the Medical Department. These litters might ordinarily serve as cots, to be used when necessary in the dispensary.

The interior economy of the sanitary detachment is worthy of much consideration. The writer's experience is that the detachment should so far as possible maintain its autonomy if it would retain its *esprit*, and consequently its efficiency. It will, however, hardly be practicable for the sanitary detachment of a marching command to maintain a separate mess, and for this purpose it should be attached to the Non-commissioned Staff

and Band, except possibly when in permanent camp.

Many advantages arise from this combination, especially appreciated by the Russians, who organize all men attached to a regiment, whose function is other than fighting, into a company, designated the Non-combatant Company. On the other hand, in the German and French Armies the sanitary soldiers mess with the companies of which they form part of the cadre.

The transportation of the material necessary to a regimental dispensary would require a cart or wagon of some kind.

The strength of the Regimental Hospital Corps Detachment should be maintained by transfer from the companies, or by men enlisted in the section of country in which the regiment was recruited, a guarantee of good men and consequently of good service.

From the foregoing we may conclude that the regimental sanitary detachment for one thousand of strength (three battalions) should consist of: * three medical officers, three non-commissioned officers, one hospital steward, two acting hospital stewards, and five privates (one nurse, one cook, and three orderlies). In addition, and for emergency only, two suitable men per one hundred of strength should be detailed as company bearers.

The Sanitary Section or Bearer Company.—Experience has emphasized the fact that "any military body trusting for its medical efficiency to the regimental aid alone, must of necessity come to utter grief when the regiments have to move forward off the battle-field, and the sick and wounded must look for attention to other (untrained) hands than those of their regimental comrades." This was the problem which stared us in the face when, on September 7th, 1862, the Surgeon-General addressed the Secretary of War so pointedly upon the necessity for extra regimental sanitary assistance in our armies. This it was that forced the organization of our ambulance corps, and this it is that has

* "Considering, then," says Colonel Joseph R. Smith, U. S. Army, "all the circumstances, including the experience of our own and foreign armies, we affirm that the proper number of medical officers to a regiment, as now organized, is one surgeon and two assistant surgeons."

developed the existent plan of military sanitation.

By reference to Army Regulations, 1889, under the caption "Hospital and Ambulance Service in War" (omitted in Regulations 1895), we find that paragraph 1600 provides that "Privates of the hospital corps in the field in time of war will be organized into a company for each brigade, with their hospital stewards and acting hospital stewards, under command of an officer of the ambulance service or a medical officer detailed for that purpose. They will habitually camp near the division hospital, etc." What the organization and function of such companies are to be is not stated, except in a general way in paragraph 1601, A. R. 1891, that under certain conditions they are "to proceed to the dressing stations or to the relief and care of the wounded." It is reasonable to assume, however, that these regulations were based upon the belief that the same elasticity which was found so useful in our last great war would be equally so in wars to come. Indeed, paragraph 1591 places the whole matter in the hands of the Medical Director of the Army through the medical directors of the army corps, who "make all necessary arrangements for the care and transportation of the wounded."

The medical director of each corps is charged with the duty of seeing that during an engagement the wounded shall receive attention at the following principal points and in the following order: first, with the line of battle under fire; second, at the first dressing station; third, at the ambulance station; fourth, at the division hospital. He establishes the ambulance stations in the rear, and gives directions concerning the first dressing stations; details the proper number of privates of the hospital corps, acting hospital stewards, hospital stewards, and medical officers, for duty with the advance line, and for the care and transportation of the wounded between the front line and the first dressing station, the ambulance station, and the division hospital.

No criticism can be made upon the fact that officers and men will be needed in the various positions above set forth, for they certainly will; but is it not placing upon the Medical Director a crushing responsibility

—a responsibility which he can by no possibility meet until he has formed his crude *personnel* into permanent military bodies, whose special functions must be defined by easily understood *written* regulations? Under the present arrangement it cannot be otherwise than that each corps will have a sanitary organization differing from that of every other corps, and men transferred from one to another will have to unlearn and then learn again. Moreover, the value of any particular corps organization will be in direct proportion to the organizing faculty of its senior medical officer, a faculty rare in any calling; certainly, in justice to our country and service, the military sanitary organization, even if largely theoretical as it must be in peace time, should be as perfect a paper organization as possible—an organization which could be modified when experience teaches the necessity therefor, but which starts as a substantial entity, based upon the best experience of all armies, and not as a general statement of military sanitary requirements to be met by crude devices, or altogether missed, depending upon the aptitude of the individual organizer.

We find no such general statements in the regulations of other armies. There the place of every man, and each piece of material even, is laid down with a particularity that must astonish those who have failed to appreciate its necessity, and yet are forced to confess that were not such minute details necessary they would not appear in the regulations of the best organized armies of the world.

The fact that our regulations provided for a company of the hospital corps for each brigade leads to the surmise that we borrowed this elaboration of our war ambulance corps from the British, and as a starting point we could probably find no better model. I do not wish to be understood as being of the opinion that the organization of the bearer companies of the British Army is either perfect or wholly fitted to the conditions of our service, but it certainly has much to commend it, and we could not begin our experience at a better point than that which they have reached. Let us consider their organization.

We learn from Longmore that the first bearer company in the British Army was

organized for service in the Transvaal War, 1881, but, owing to the cessation of hostilities, was never actively engaged. The *personnel* consisted of eight medical officers, three officers of orderlies, thirty-six enlisted men of the active army, 106 enlisted men of the reserve, one officer and fifty-six enlisted men of the army service corps—total, 210.

From motives of economy, and probably efficiency as well, the strength of this organization was reduced one-half, leaving three medical officers, one warrant officer (sergeant-major), one quartermaster-sergeant, one compounder, four sergeants, one bugler, six corporals, and forty-seven privates, the latter including three cooks, thirty-two bearers, three servants, and nine supernumeraries—a total of sixty-four.

Attached to this company is a detachment of the army service corps as follows: One officer, one sergeant, one bugler, two corporals, one collar-maker, one farrier, and thirty-six privates—twenty-nine drivers, one servant, one cook, and three supernumeraries—total, forty-one.

A grand total of 105 (all under command of the senior medical officer) for each brigade of five thousand strength.

The duties of this company are to render first aid to the wounded on the field and at the collecting stations, but chiefly at the dressing station which it establishes, and to which it removes the wounded from the collecting station, afterwards transferring them to the field hospital.

Longmore states that the bearer companies are apportioned one to each brigade, but do not form an integral part of it; they are under the authority of the divisional chief medical officer, who, under the General commanding, assigns them as occasion demands.

The percentage of strength of the variously called bearer companies, ambulance corps, sanitary sections, or detachments, to the fighting strength, is as follows:

	Per cent.
Russia.....	.029
Italy.....	.019
Switzerland.....	.022
France.....	.022
Germany.....	.026
Austro-Hungary.....	.027
Great Britain.....	.021
United States.....	.024
General average.....	.0237

The bearer companies, sanitary sections, detachments, etc., of the various armies are made up as follows:

Army of—	Medical Officers.*	Other Officers and Officials.*	N. C. O. and Officers.*	Privates.*
Germany.....	7	5	4	245
Russia.....	5	2	29	256
Austro-Hungary.....	3	..	..	276
Italy.....	6	3	23	157
Great Britain.....	6	2	..	202
Switzerland.....	20	10	20	170
United States....	..	17.5	20	205
France.....	6	6	8	208
Average.....	6.6	5.7	13	215

* Per 10,000 men (one division).

Longmore complains that the British bearer company is too small, "for the reason that the amount of work which might be produced with the excellent material and appliances is lost, because there is not sufficient 'strength' to work it."

I am, however, inclined to believe that $2\frac{1}{2}$ per cent. will be the maximum allowance for any bearer organization we may establish, and I doubt if any one officer can satisfactorily command any such body numbering much over one hundred.

The question of the organization and distribution of these men is important, and perhaps may best be gotten at by a further consideration of their duties as set forth in the Regulations for the Medical Staff Corps of the British Army.*

Before proceeding further, let us glance for a moment at the wheeled equipment of the bearer company, as important to a full appreciation of its function. It will be remembered that in the British service this with its *personnel* is attached to its bearer company, from the army service corps (Q. M. D.), of which for the nonce it becomes an integral part. Each company has ten ambulance wagons, three army wagons (one for equipment, one for stores, and one for train), and three carts (one for forage, one for tent-

* For information of the practical working of the bearer company I am indebted to the excellent monograph of Surgeon-Captain C. J. Addison, A.M.S., on the "Medical Arrangements of an English Army Corps in the Field," etc., 1891.

age, and one for water). There may also be a *furgeon* or surgery wagon, very much resembling the so-called "medicine wagon" well known in our service in 1861-65.

On the battle-field the bearer company first organizes what the British call a dressing station, but which in the language of our regulations above quoted is known as the ambulance station. The location of this station is so important that I will venture to quote Van Widdern thereupon: "An ideal position for a dressing station is from 1000 to 2000 yards in the rear of the fighting troops, at a point not exposed to fire, and communicating with the front by a good road. It should be established, if possible, in a building* with large and well lighted rooms, in sufficient number to hold several hundred wounded lying down, and there should be shade in its vicinity and a plentiful supply of water for drinking and for washing and bathing wounded men, and also, if possible, of straw for bedding."

The *personnel* of the dressing station consists of: the commanding medical officer, junior medical officer, three sergeants (one sergeant-major, one sergeant-compounder, and one sergeant), one corporal, one bugler, four privates including a cook.

Certain supply wagons of the company under charge of the quartermaster-sergeant, two privates detailed as company cooks, the officers' servants, and one supernumerary private, are posted in rear of the dressing station.

The rest of the company moves forward and forms a collecting station (called by us the first

dressing station). This station is located just within the zone of infantry fire, is in charge of a sergeant, and the ambulance wagons are here posted each with its orderly. The litter-bearers, under command of the remaining medical officer of the company, advance from this point upon the field in two sections, each consisting of one sergeant and sixteen privates, to render first aid to the wounded and to carry them to the collecting station—a work in which they are assisted by the company bearers heretofore mentioned. Such wounded as require it are then loaded into the ambulance wagons and transferred to the dressing station.

It has been stated that the dressing (ambulance) station is the central feature of modern battle-field sanitation. When the wounded reach this point they are fed, carefully examined, classified, and, if immediately necessary, operated upon or re-dressed, after which, if able to bear transportation, they are sent back to a field hospital.

Accepting Van Widdern's ideal preparations for several hundred patients, it might well be remarked that the *personnel* of the dressing station above described would be totally inadequate to the demands upon it; and so undoubtedly it would, were not arrangements made by which several dressing-station sections could be consolidated and details made from available medical officers and men not otherwise engaged. Longmore says: "There is no reason why some of the medical officers attached to regiments and corps should not be lent to assist in the duties of the dressing stations during an action, when there is extra pressure at them," and the British regulations as well as our own give the principal medical officers full authority to order this. Oftentimes, indeed, the dressing station for the nonce becomes the field hospital, when for any reason the latter cannot be brought to the front, and when the army to which it belongs has advanced or retreated and the wounded are too numerous to be moved, or other causes prevent their movement. The importance of the bearer company cannot be overestimated, and upon its proper organization and management will depend much of the success which will attend the care of the wounded in future wars.

* Longmore says: "The steps which have been taken to *prevent* accumulations of wounded for combined treatment in large and often unsuitable buildings have constituted one of the greatest improvements effected of late years in military medical administration. Nothing has more tended to diminish the preventable mortality among wounded men than the plan of treating them in separate and freely aerated huts or tents, limiting the numbers collected in one locality," etc.

Colonel B. J. D. Irwin, U. S. A., writes: "One of the most valuable lessons taught by the experience of the American war of 1861-65 was the demonstration of the inestimable value of the tent as a hospital."

Other military sanitary authorities are equally in favor of the tent and of the segregation of the wounded.

Our ambulance corps of 1861-65 corresponded very closely to the bearer company of to-day. The strength of that organization, according to Colonel Joseph R. Smith, U.S.A., was determined from the regiment (500 men) as a unit, "two regiments constituting a brigade, two brigades a division, and two divisions a corps, four thousand men in all," about the strength of a European brigade. "To an army corps of this strength the law allows as a maximum twenty-six ambulances, with four attendant-wagons, and seven officers, eight non-commissioned officers, and eighty-two privates of the ambulance corps." About two per cent.

The percentage corresponds with the experience of other armies and may be accepted. It is hardly to be presumed, however, that the strength of an army corps will in future be that mentioned by Colonel Smith, though this is still the minimum laid down in the regulations, as follows: "The division is the basis of organization of an army, and is both a tactical and administrative unit; . . . it is ordinarily composed of two or more brigades of infantry or cavalry (of two or more regiments), but under special circumstances may embrace troops of all arms of the service. . . . An army corps will ordinarily consist of two or more divisions of infantry or cavalry," etc.

It will be noted that the extreme elasticity of organization still obtains, but I am informed that the strength of the division will probably be about ten thousand men.

From the foregoing it will be observed that it would not be practicable to organize an effective bearer company for each brigade as prescribed, but that one or more might be assigned to duty with a division, depending upon the exigencies of the service. Such a company might be organized on the same lines as is the British bearer company, until experience has taught us something better.

The Field Hospital.—It is found in most armies of to-day that provision is made for field hospitals with independent *personnel* and *matériel*, quite distinct from the lines of sanitary assistance aforementioned. This is an evolution from our experience of 1861-65, when the permanent cadre of our divisional field hospital, so named because one pertained to each division, contained only "a

surgeon in charge, with an assistant surgeon as executive officer, and a second assistant surgeon as recorder." When in active operation "in addition to the foregoing there was an operating staff of three surgeons, aided by three assistant surgeons and the requisite number of nurses, cooks, attendants, etc., three from each regiment, all detailed for the occasion from the different regiments of the division." From which it might be supposed that experience has taught us that the *personnel* necessary to the proper conduct of a field hospital for a division (10,000 men) is nine medical officers and twenty-seven privates (as nurses, etc.). The Medical and Surgical History of the War says nothing of any non-commissioned officers as forming part of the permanent cadre of this hospital, but it is reasonable to presume that some such must have been attached, say three hospital stewards, making a total of thirty-nine officers and men.*

The field hospital *personnel* differs somewhat in amount in different armies, as follows:

Army of—	Medical Officers.*	Other Officers and Officials.*	N. C. O. and Officials.*	Privates, etc.*
Russia	10	4	..	214
Italy	7	3	12	51
Switzerland ...	2	5	4	16
France	8	6	10	208
Germany	30	18	36	252
Austro-Hungary	14	7	4	...
Great Britain...	12	3	..	198
United States...	9	..	3	27 (?)
Average.....	11.5	5.7	8.6	120.7

* Per 10,000 men.

One is struck with the difference in numbers obtaining in different armies, which may be due in part to errors in sources of information, but even this is more apparent than real, since the *personnel* of the field hospitals is reinforced from the bearer companies, sanitary sections, or regimental detachments,

* We must, however, in this connection consider the fact that especially in the latter part of the war the average strength of a division was scarcely greater than the theoretical strength of a brigade, say 3000 men, which number would be adequately served by the field hospital *personnel* above described.

which in a measure make up for the seeming deficiency in the field hospitals; however, not wholly so. It is reasonable to believe that Germany, whose sanitary *personnel* is apparently so liberal, would not sacrifice so many bayonets, did she not deem the sacrifice necessary; and if necessary in the Army of Germany, why not equally necessary in other armies?

In considering the question of military organization with us, we must not fail to realize, as before mentioned, that any troops we may be called upon to use in war will be volunteers, taken for the most part from the untrained masses of the people. Such troops will require proportionately more officers. Particularly is this so with the sanitary soldier, for while, like his brother of the line, he has "to do and die," unlike him he has also "to reason why," a fact which makes his careful instruction the more necessary." This was our experience during the last war. How then does it happen that our division hospital *personnel* was so small when compared with that of most other armies? There can be no question about this so far as the minimum is concerned which was prescribed by the Surgeon-General U. S. A., in March, 1863, as above stated, but it must be understood that any requirements beyond this were met, to the extent, if necessary, of the entire sanitary *personnel* of the division.

As a practical illustration I quote from a report of the Medical Director of the Army of the Potomac, as set forth in the valuable monograph of Colonel Joseph R. Smith, U. S. A.:

The first division of the Second Army Corps numbered 8000 men in twenty-one regiments, organized into four brigades. To it were allowed for medical purposes twenty-two hospital tents, fourteen army wagons, and four medicine wagons. Six of the army wagons were loaded with regimental medical property, four with brigade supplies, two with hospital tents, one with cooking utensils and three hundred rations, and one with blankets, beef-stock, whiskey, chloroform, bandages, lint, etc. An operating table was established for each brigade, with corresponding (medicine) wagon beside it; otherwise brigade and regimental organizations were ignored.

The surgeons-in-chief were, *ex-officio*, the operating surgeons. Thirty-six regular hospital attendants, in a distinctive uniform, prepared and distributed food, dressed wounds, and generally cared

for the patients. During battle the drum corps of the division—350 men and boys—organized into companies, and properly officered, was put on duty in the hospital; from these, details were made to pitch and strike tents, move the wounded, procure water and wood, bury the dead, and do general police duty.

A provost guard was present with the hospital during an engagement, to arrest malingers and restore stragglers to their commands. In a few divisions of the army the hospital tents were pitched by brigades.

From the foregoing report it is impossible to determine the exact strength of the *personnel* of the field hospital of the first division, Second Army Corps, but, including medical officers, stewards, attendants, teamsters, drum corps, and provost guard, it could not have been much less than five hundred, or about six per cent.—a number apparently much beyond the requirements of the situation. By reference to the table of the *personnel* of field hospitals in the different armies per 10,000 of strength, we find that the average for all is, in round numbers, twelve medical officers, six transport officers, nine non-commissioned officers (sanitary and transport), one hundred and twenty-one privates (sanitary and transport)—total, 148, or 1½ per cent. But leaving out the armies of Italy, Switzerland, Austro-Hungary, and our own, in which the *personnel* seems to be inadequate, and is probably erroneously reported, we find that the mean strength for the armies of Russia, France, Germany and Great Britain is fifteen medical officers, eight transport officers, twelve non-commissioned officers (sanitary and transport), two hundred and eighteen privates (sanitary and transport)—total, 253, or 2½ per cent.

This mean corresponds very closely to the actual strength of the *personnel* of the British field hospitals for a division, differing chiefly in the number of non-commissioned officers, which is greater in that service and will be found necessary in our own; and we may therefore safely continue the consideration of the sanitary organization of that army in its application to our own requirements. In the Army of Great Britain there are thirteen field hospitals to each army corps (about 40,000 strength, in one cavalry and three infantry divisions), three with each division, and one with the corps troops (staff, artillery

reserve, etc.). The *personnel* of each is: four medical officers, one quartermaster, forty-three non-commissioned officers and men of the medical staff corps, and thirty-six non-commissioned officers and men of the army service corps—total, seventy-two.

The transportation consists of six army wagons for supplies pertaining to the hospital, one army wagon for supplies pertaining to the transport, and four carts (one for tents, one for forage, and one for water). The hospital will accommodate one hundred patients, and is divisible into half-hospitals.

To all the field sanitary units of foreign armies, the transport and *personnel* therefor are attached from the train troops, which for the nonce become an integral part of the unit. This arrangement is of great convenience. During the latter part of our war the ambulance corps was practically supplied with its transportation in this way, for, while we had no train troops, the Quartermaster's Department, as the war progressed, organized an exceedingly efficient transport service, the like of which was probably never before seen.

Much of the trouble, however, that the Medical Department encountered before the organization of the ambulance corps, arose from the indisposition of the Quartermaster's Department to relinquish its control over the transportation necessary to the actual work of the Medical Department; and it was only when the transportation properly pertaining to it came under the command of the latter that the field sanitary service became thoroughly efficient.

One has but to read the medical history of the early part of that war to be thoroughly convinced of this fact. Nor were we singular in this respect. Longmore says: "Sad experience taught the British military authorities the necessity for a defined scale of hospital equipment for every battalion, brigade, and division of an army, and for the explicit allotment of horse and wheel transport for its conveyance." It would seem to go without saying that the efficiency of one military department should never be wholly dependent upon another which at best can have but little knowledge of its necessities. Nevertheless, we can hardly hope that our sanitary department will be in the immediate future completely autonomous; hence any plan of

organization at present feasible must look to the attachment of transport from the Quartermaster's Department, with insistence by the Medical Department upon compliance with the provisions of the law which gives the latter complete control thereof when so attached. This is vital, and any scheme of sanitary organization which does not comprehend such control, no matter how perfect otherwise, must prove non-effective.

Returning to the consideration of the field hospital, we find that our proposed organization must provide separate field-hospital accommodation for the invalids of each aggregation of three thousand men, however they may be organized; and we also find that the *personnel* of such a hospital must number about four medical officers and forty-one non-commissioned officers and men of the sanitary corps, exclusive of the *personnel* of the transport corps, which will number, say, one officer and twenty-six non-commissioned officers and men.

Back of the field hospital we will not go. The organization of the lines of communication and base hospitals is a problem of great importance, worthy of the deepest consideration, upon which the writer hopes to, at some future time, present his views. The general hospital, beyond the theatre of war, does not in its interior economy differ materially from that in civil life.

In view of the foregoing, were war declared to-morrow, what law or regulation could be formulated that would place the Sanitary Department in a position to meet the demands of active service? The following is offered as a practicable answer:

First: A regimental detachment, consisting of three medical officers, three non-commissioned officers, and three privates, should be organized *pari passu* with the regiment (three battalions, 1200 men)—0.9 per cent. This detachment, when properly equipped, would easily meet the current requirements of the regiment to which it was attached, and no further consideration would need to be given this point until the regiment had been brigaded and assigned to a division.

Second: At the time requisition is made upon the several States for their quota of troops, the authorities should be notified that a certain percentage of the number enlisted

must be for the sanitary corps, and that these are to be selected under the direction of the Surgeon-General of the State. The recruits for the sanitary corps should rendezvous at the State medical depots, for preliminary instruction and organization into bearer companies and field-hospital detachments. The bearer company should consist of three medical officers, thirteen non-commissioned officers, one musician, and forty-seven privates; total, sixty-four. The field-hospital detachment should consist of four medical officers, one other officer, thirteen non-commissioned officers, and twenty-eight privates; total, forty-six.

A bearer company and a field-hospital detachment should be raised for each three thousand troops furnished by a State—3.7 per cent.

The proposed organization provides a sanitary *personnel* of 4.6 per cent., which it is believed will be entirely adequate to meet ordinary requirements. Under extraordinary conditions, reinforcement to the extent of two per cent. may be looked for from the emergency *personnel*, the so-called company bearers who will probably in the future as in the past be detailed from the musicians.

If the average strength of our regiments should in future wars be five hundred, as it was during the last war, which is quite unlikely, the number of medical officers under the proposed scheme is liberal; but when we consider the fact that upon any occasion hardly more than sixty per cent. of the paper strength of an army is "for duty," the allowance is not too liberal, since we will not actually have from front to rear more than one medical officer to two hundred of fighting strength.

The foregoing is believed by the writer to be a fair answer to the question: "What is the most practicable plan of sanitary organization for active service in the United States Army?"

With us, to-day, military organization and training are only important as a preparation for war. The management and instruction of any small body of men for any ordinary purpose is so simple a matter as to require no remark; but when that small body is representative, as is our military sanitary department, of a great body into which it will expand,

when the occasion demands, and of which it will become the leaven leavening the whole loaf, the importance of its proper organization and training becomes apparent, always remembering that "in war, only that which is simple can attain success, therefore that alone which is simple must be taught and practiced during peace."

Governor's Island, N. Y.,

May, 1896.

RELIEF OF IMPERMEABLE ORGANIC STRICTURE OF URETHRA.

BY ST. CLOUD COOPER, M.D.

I wish to call attention to a satisfactory method of dealing with impervious urethral stricture, complicated by extravasation, supuration, or urinary fistulæ, by establishing a permanent opening in the perineum for the purpose of micturition, and to report the result in two cases. Bryant (London), in his *Practice of Surgery*, speaks very highly of this operation, and says that it is the only form of perineal section that ought to be performed for an impervious urethra, and that it is not sufficiently known. He adds that the operation was suggested by Mr. Cock and is known by his name; its *rationale* is thus set forth:

The objects aimed at in the operation can be accomplished, and I doubt if this can be said of any other operation having the same object. However complicated may be the derangements of the perineum, and however extensive the obstruction of the urethra, one portion of the canal behind the stricture is always healthy and often dilated, and is accessible to the knife of the surgeon. I mean that portion of the urethra which emerges from the apex of the prostate—a part which is never the subject of stricture, and whose exact anatomical position may be brought under recognition of the finger of the operator.

Thus when we cannot introduce a catheter by the ordinary method, and even when we cannot tap the bladder through the rectum, it still remains with us to *tap the urethra as it emerges from the prostate*, and thus effect the desired communication.

Bryant, continuing in the words of Cock, describes the operation as follows:

The patient is to be placed in the usual position for lithotomy; it is of the utmost importance that the body and pelvis should be straight, so that the median line may be accurately preserved. The

left forefinger is then introduced into the rectum, the bearings of the prostate are carefully examined and ascertained, and the tip of the finger is lodged on the apex of the gland; the knife is then plunged steadily but boldly into the median line of the perineum and carried on in a direction towards the tip of the left forefinger which lies in the rectum. At the same time, by an upward and downward movement, the vertical incision may be carried to any extent that is considered desirable. The lower extremity of the wound should come to within half an inch of the anus. When the operator has fully assured himself as to the relative position of his finger, the apex of prostate, and the point of his knife, the latter is to be advanced with a motion somewhat oblique, either to the right or left, and it can hardly fail to pierce the urethra.

With this brief description I will give an account of two cases, operated on four and three years ago respectively, in both of which the results were eminently satisfactory to myself and also to the parties operated on.

Case 1.—On March 1st, 1891, I was called to see G. G.—, a mulatto, married, aged 54, who had suffered from stricture for twenty years; he had been treated for a short time, ten years before, by dilatation, and with some benefit. For twelve months he had suffered, off and on, with a constant desire to urinate—passing urine in a very small stream, and for two weeks prior to operation the urine passed only in “fast drops,” with continual vesical tenesmus. While making violent efforts to urinate, he felt something give way, and the bladder distention was relieved. That night and next day he suffered from frequent rigor and high fever. It was nine days after this when I was called, and I found the penis, perineum and right supra-pubic region swollen and œdematous; the scrotum very much distended and gangrenous; patient delirious, with a temperature of 106° and a quick and feeble pulse. It was evident that something had to be done quickly to prevent further septic absorption; so incision was made in the median line of the perineum and in the supra-pubic region, evacuating large quantities of urine and foul-smelling pus; necrotic portions of the scrotum were also cut away. Then the wounds were thoroughly douched with hot bichloride solution. An effort made to pass an instrument into the bladder was not attended with success, even when the smallest filiform bougie was employed.

For the next week or so his wounds were treated by thorough douching with hot bichloride solutions. The sloughing scrotal

tissues left the testicles bare and hanging by the spermatic cords. The urine passed through the numerous fistulæ.

On March 12th all wounds were healing nicely and the patient was very much improved. Several attempts, at different times, to pass an instrument into the bladder, met with failure.

On April 5th the perineum and adjacent parts were shaved and thoroughly scrubbed, and the patient put under the influence of chloroform and placed in the lithotomy position. I made an incision in the median line from the scrotum to within half an inch of the anus, through all tissues down to where I supposed the urethra ought to be; but no evidence of urethra could be found in the dense, indurated, and cicatricial tissue. A strong silk ligature was passed through each lip of the wound, and these served as retractors. The left index finger was then introduced into the rectum, and apex of prostate located, when the knife was pushed upwards in the direction of the tip of the finger, and entered the dilated part of the urethra behind the stricture. The dilated open canal could be plainly seen at the bottom of the wound. A catheter was then passed into the bladder, followed by free flow of urine.

With simple attention to cleanliness, in one month the parts had healed down to one large fistula, freely admitting a No. 26 A. catheter.

Since that time, now four years, the patient has increased in weight, enjoys splendid health, and has never been troubled by the pangs of a distended bladder; he works at his trade, and earns full wages. A large bougie is passed now and then in order to keep the fistula dilated.

Case 2.—N. H.—, mulatto, 65 years of age; had stricture of urethra for twenty-five years, but no treatment up to a short time before he came into my hands. Sixteen months before had perineal abscesses, and was confined to bed for six months. Much emaciated and exceedingly nervous; worn out by constant desire to urinate and loss of sleep; had taxed the patience and exhausted the resources of his friends, as well as those of his medical adviser. Several urinary fistulæ were found; instrument passed two strictures of small calibre—the first three and the second five inches from the meatus,—but a third, which was formed in the membranous portion, was impermeable to even the smallest filiform bougie. In making examination it was necessary to chloroform the patient, as cocaine did not seem to have any effect

upon the exceedingly irritable urethral membrane.

April 4th, 1892, the same operation was performed as in the former case, and, as in that, the dilated urethra could be seen in the bottom of the wound. After operation he rapidly gained in health and flesh, and the cystitis subsided without any other treatment. At the present time he is able to do hard work; can retain his urine all night; is cheerful and feels like a new man. He was also given a large bougie to keep the false urethra open.

Since these operations I have vainly tried on both patients to pass an instrument through the old canal, but made no prolonged effort, as they are so well satisfied with existing conditions. Both of them urinate through the perineum, and consequently have to assume the position of the female when performing that act. In both instances the penis, in spite of losing one of its functions, is still as serviceable as ever for sexual purposes, though the power of procreation, of course, is lost.

In conclusion, I will say that I know of no surgical procedure that is so satisfactory to both surgeon and patient as is this, and I most certainly would advocate it in cases of irritable stricture of small calibre, complicated with cystitis, if instrumentation be badly borne; for after the establishment of the factitious urethra the bladder obtains needed rest and the stricture becomes more amenable to treatment.

Jefferson, Texas.

THE PAST AND THE PRESENT.

Owing to the former great mortality accompanying surgical procedures, many operations that should have been done were left undone, and, with our present knowledge, we criticise the surgeon of the past, and consider that he failed to save life by neglecting to perform an operation that to us, in our present light, appears trivial. With equally good reason the surgeon of the past might, were he to rise from the tomb, criticise the operator of the present, and tell him that, in his opinion, he performs unnecessary and useless operations. We are enabled to do so much with so little danger that we are apt to forget where we should stop.—*Exchange*.

Correspondence.

Neither Editor nor Publisher will be responsible for opinions expressed in this department of THE MEDICAL AGE.

RECOLLECTIONS.

Editor MEDICAL AGE:

In the year 1862, when many were off to the war, the young wife at times became weary of her husband's protracted absence to such extent that she failed to resist the offered embrace of the vigorous young man who brought in the wood and attended to the chores when the man of the house was absent.

One case in particular is called to mind by reading in THE MEDICAL AGE (May 11th, 1896) the story of "A Peculiar Illegitimate Birth."

It happened in a country town in northern New York, and the doctor was called in haste to see a woman said to be suffering severe pain in her teeth. Upon his arrival he found, not the mother-in-law only, but all the women of the neighborhood, gathered to sympathize with the sufferer and also to hear what the doctor had to say. As all the apparent symptoms might have resulted from decayed teeth and a severe cold, the medical man admitted nothing to the contrary. But as he was leaving the house the patient followed him beyond the outer door and said, *sub rosa*: "Doctor, it is not my teeth that give me the most trouble. My husband has been in the Army a full year, and is expected home in a few months. What am I to do? No one suspects my condition. For God's sake help me out of this!" "Never you mind," said the doctor, in his usual voice; "I think we can save those teeth. And I'll call to-morrow and have with me some medicine to break up that cold." Three or four days after this the patient's cold subsided and her monthlies appeared, accompanied by severe pains and an extra flow—"just sufficient," the doctor said, "to make up for the times she had skipped."

Through all this not a breath of suspicion was aroused, and when the husband came home on a furlough, as expected, he found everything as nice and fresh as when he started for the war.

Some years later the same doctor was called some miles into the country to attend the fine-looking twenty-year-old daughter of a well-to-do farmer who had begun to fear his child was "going into a decline." Carefully guarding his suspicions, the medical man soon succeeded in quieting the gastric disturbance and allaying the morning sickness, and thereupon assured the family that she would eventually "come out all right." Neither the girl

nor her family appeared to have any suspicion of what had caused the trouble. In due course of time, when the abdomen became too prominent for longer concealment, the family began to fear that "dropsy had set in," and thereupon the doctor said to the patient in the presence of her mother: "If now you were a married woman, I should feel certain you were in the 'family way.'" All *exposure* in that direction was most positively denied, and a particular examination was refused.

Some months later one of the boys came in haste for the doctor, saying his sister was having an awful time of colic. The man of medicine was soon at her bedside, and, finding her already in position for successful labor, said: "Now, my girl, since you cannot escape me any longer, you will have to submit to an examination." He speedily declared it was all right—"we'll have a boy here in a short time."

The mother soon appeared and insisted there must be a mistake—she knew it could not be so.

"Never mind," said the doctor, "just get ready the blanket, the shears and string, and I'll soon show you a full-grown child. But is there not some one at the village you'd like to have here?"

A messenger was promptly despatched to the home of the girl's lover, and the mother of the latter received the note which requested her to come at once and bring her "baby things" if she had any. The family were at "tea," and after reading the note she passed it to her son with a look that spoke volumes; then ordered him to hitch up the horse at once and take her to the country. The father of the young man was sent for their pastor, and before the infant was three hours old its parents were husband and wife. They have been a happy and prosperous family ever since.

J. B. NICHOLS.

Plattsburg, N. Y.

SUSPENDED ANIMATION FROM CHLOROFORM ANÆSTHESIA.

Editor MEDICAL AGE:

In August, 1895, I circumcised a boy of three. There was nothing out of the ordinary in the operation, and the patient took the chloroform nicely. Everything went all right until the operation was completed. The administration of the anæsthetic had ceased, and while waiting for the patient to recover from its influence it was suddenly noticed his skin was developing an unwonted pallor, the veins were exceeding blue and prominent, and the eyes fixed and glassy. In a few

moments breathing ceased. The student who had been giving the chloroform immediately began artificial respiration by raising and lowering the arms, and I injected hypodermatically digitalin, nitro-glycerin, and strychnine, and also assisted in the work of keeping up artificial respiration. I could not feel any pulse whatever; even when the stethoscope was placed over the heart not even the faintest beat could be detected. Artificial respiration was kept up; the hips raised; the sphincter ani stretched. Every method possible was employed, but without success. After working some minutes, the student was sent to secure the aid of another physician, I meantime doing all I could to bring life back. There was an interval of at least twenty minutes without any sign of life. By this time the little fellow had become cold and I despaired of bringing him back to life, when the idea struck me of blowing his lungs full of my own breath. Accordingly I placed my mouth over his open mouth, held the nostrils, and blew the lungs full of air; removing my mouth, I pressed the air from the lungs. After doing this several times, I noticed a slight noise in the child's throat made by the escaping air. I repeated the operation a few times more, the noise becoming louder each time. I then commenced raising and lowering the arms again, pressing the air from the lungs each time, and in about one minute's time the child commenced breathing. After assisting the lungs a little longer, natural respiration was established. In one hour's time the little fellow was completely out from under the influence of the chloroform, and seemed to experience no trouble whatever from the twenty-five minutes during which he was to all intents and purposes *dead*!

I had placed the stethoscope over the region of the heart a number of times and could detect no motion whatever; and in fact I know, had I kept up just the artificial respiration by the ordinary methods, my patient would never have breathed again. Whether it was the mere fact of expanding the lungs to their fullest extent and pressing the air from them, together with the effects of the oxygenized blood on the heart, or whether the warm breath from my own lungs had anything to do with the return of life, I cannot say. Whether this means of restoration would apply to other cases of suspended animation, remains to be proven. The child had no trouble or disease; but in every case one would not care to place his mouth over that of the patient.

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THE MEDICAL AGE.

A SEPT-MONTHLY REVIEW OF MEDICINE.

PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JUNE 25th, 1896.

Editorial.

DIGITALIS VERSUS STROPHANTHUS.

When strophanthus was first introduced to the medical profession, marvellous claims were made for it as a heart tonic and diuretic, and the assurance given that it was not only a complete succedaneum for digitalis, but superior to the latter in being more prompt in action and non-cumulative in effect;* more, it was to be considered of benefit in exophthalmic goitre,† angina pectoris,‡ arterio-stenosis,§ renal insufficiency,|| and particularly indicated in ventricular incompetence¶—and all this in spite of the researches of Fraser, who at an early date emphatically declared:** “Strophanthus acts 3000 times more powerfully than digitalis upon the muscles of the arterioles.”

Recently Doctor George W. Balfour,†† who has made several very exhaustive physiological studies of strophanthus, pointed out there existed no similarity between it and digitalis. From the entire absence of any appreciable action of the former on the arterioles, the blood flows freely from the arteries into the veins, and any little rise of blood-pressure there may be is due entirely to the systole of the heart. The typical—therapeutically in-

duced—strophanthus heart has a prolonged diastole, so that the arteries have a longer time than usual to empty themselves, and as the ventricle has been filling during this period, its systole sends an unusually large blood-wave into unusually empty arteries—the momentary rise of blood-pressure passes rapidly with the blood-wave down the unfilled arteries; it does not, therefore, persist as long as the ventricular systole, and is consequently of a shorter duration than even the third of a cardiac cycle. So evanescent a rise in blood-pressure can have no appreciable effect either upon general metabolism or upon the metabolism of the myocardium. Herein the action of strophanthus differs most essentially from that of digitalis; and from the absence of any improvement in the metabolism of the myocardium, the stimulating action of the former drug must tend to still further exhaust instead of strengthening it.

Remembering this, the remarkable two-fold action of strophanthus on the heart is easily understood. As Balfour emphatically shows, “in large doses it exerts its own poisonous energy and forces the heart into systole; and in minimum lethal, or so-called therapeutic doses, it exerts a less powerful stimulation on the myocardium, with a type of action in which slowing of the rate is produced by prolongation of the diastole and by occasional pauses in extreme diastole, both auricular and ventricular expansions and contractions being at the same time increased.”

Balfour further adds: “The action of strophanthus, like that of all its congeners of the *Apocynaceæ*, is that of a cardiac poison, and not a cardiac tonic. In large doses—though from the energy of the drug such doses may be really small—it forces the heart into a fatal systole. In smaller doses it stimulates to increased cardiac action, and by calling on the reserve of the heart energy without improving its metabolism it causes death in diastole from exhaustion; and the more feeble the heart is, the greater the risk attending this peculiar action.” Thus, while strophanthus may occasionally be of use in cases of ruptured compensation, any assistance which it gives is necessarily at the expense of the cardiac reserve, and the patient is saved from

* *British Medical Journal*, volume ii, 1895, and volume i, 1889.

† *Practitioner*, volume xlii.

‡ *Lancet*, volume i, 1889.

§ *Ibid.*, volume ii, 1888.

|| *Therapeutic Gazette*, 1890.

¶ *British Medical Journal*, volume i, 1890.

** Transactions Royal Society of Edinburgh, volume xxxv.

†† *Edinburgh Medical Journal*, June, 1896.

serious disaster only by the benefit he has derived from improvement in his environment generally. Thus evidence is conclusive that strophanthus is at all times an uncertain and dangerous drug to employ, and one entirely unworthy of being deemed a remedy.

As regards digitalis, it is quite otherwise. This drug does not act by calling on the reserve of cardiac energy; but by improving the metabolism of the organism generally, and especially of the myocardium, it adds to this reserve, and aids any improvement in the environment not only to tide over a temporary disability, but to restore the myocardium to such a condition of comparative health as will enable it to withstand the deteriorating influences to which it may be exposed.

Indeed, it is difficult to conceive of a greater contrast than that which subsists between the action of strophanthus and digitalis, and the more carefully the actions and scope of both are considered, the more markedly these differences will be found to be accentuated.

STRANGE IDIOSYNCRASY.

The question of maternal impress upon the foetus while *in utero* is still a moot one. In spite of all that has been written upon this subject, we appear to be no nearer a definite solution of the problem than we were several centuries ago. Francis Galton writes *Nature* of a peculiar idiosyncrasy of a gentleman whom he terms Colonel M——, and which the latter by request described as follows:

From my earliest remembrance, and still up to now, any sign of an injured nail in a person, even if a total stranger, or any injury, however slight, to one of my own nails, causes me to break into a deadly cold perspiration, with feeling of sick faintness. But still further: if I chance to hear any one else narrating in casual conversation any injury of this particular sort to themselves or others, it brings on me exactly the same feeling. So much is this the case that many years ago, when I was in the prime of life, at a large dinner party, when one of the guests near me persistently chanced to go on talking minutely of some such little accidental injury that had befallen him, I turned very faint, tried all I knew to shake it off, but could not, and presently slid right under the table, quite unconscious for the moment. This is the more singular because on no other point am I in the least squeamish. In old days I have seen soldiers flogged be-

fore breakfast without its affecting me, though some of the rank and file would be very much upset, and in cases of death, illness or wounds I have never experienced, as an onlooker, the sensations I have alluded to above.

Mr. Galton also remarks that the mother of Colonel M—— had pinched her own finger-nail badly shortly before his birth, and, as is not uncommon in coincidences of that kind, she believed her accident to have been the cause of her son's peculiarity. Colonel M—— further continues:

As a boy I was conscious of this repugnance of mine, but was ashamed of it, and never used to mention it to any one. When I became a young man I one day mentioned it privately to my mother, who it appeared had already noticed it in me as a child. She then told me the incident about her own finger, and she and I, being both utterly unscientific persons, assumed then and there that my squeamish feelings about injuries to finger-tips must be connected with her little accident.

Careful inquiry revealed the fact that the injury to the mother, however painful at the time, was not so severe as to leave a permanent mark; also that no analogous peculiarity is known to exist among the near relations of Colonel M——, father, brother, three sisters, and numerous nephews and nieces. The Colonel has no children.

As Mr. Galton remarks, the foregoing shows that a very peculiar idiosyncrasy may spring suddenly into existence, and need not develop gradually through small ancestral variations in the same direction. "It is a more astonishing phenomenon than the equally sudden appearance of musical faculty in a single member of a non-musical family, being very special, and so uncommon and worse than useless that its ascription to reversion, in the common sense of the word, would be absurd—that is to say, it would be silly to suppose a sickly horror of wounded finger-nails or claws to have been so advantageous to ancient man or to his brute progenitors as to have formerly become a racial characteristic through natural selection, and though it fell into disuse under changed conditions and apparently disappeared, it was not utterly lost, the present case showing a sudden reversion to ancestral traits." Such an argument would be nonsense. But though this particular characteristic is of negative utility, and hardly worthy of being consid-

ered a very remote argument in favor of maternal impressions, its existence is fresh evidence of the enormously wide range of possibilities in the further evolution of human faculty.

QUICK-AND-EASY MEDICAL JOURNALISM.

One of our Eastern contemporaries, the reputed organ of a medical college alumni association, illustrates in the extreme the quick-and-easy method of editing a medical journal. The entire text consists of three papers—not a line of real original,—and “Annotations,” twelve in number, eight of which are taken bodily from the May number of the *Bulletin of Pharmacy*, though credit in four instances is given to other journals; in one instance the credit is given to *Journal de Pharmacie*. Then follow reading notices and advertisements.

All this may be highly flattering to our pharmaceutical contemporary, the *Bulletin of Pharmacy*, but would appear to be somewhat objectionable from the standpoint of a journalist.

We have before made allusion to the discreditable manner in which many so-called medical journals are edited, and particularly to the scheme whereby one paper is published in a score of different periodicals with a view to advertising its author.

One of the foremost gynæcologists and abdominal operators in the United States was recently solicited to furnish a paper for THE MEDICAL AGE, and in the communication was added the usual caution—made necessary in these days—“Please remember any paper reaching THE MEDICAL AGE is accepted only with the full understanding that it shall be published exclusively in this journal.”

In this instance the author wrote: “I never knew that any reputable writer was in the habit of sending a paper to more than one journal.”—This criticism speaks for itself.

A JUST DENIAL.

The action of Judge Ferris, of Cincinnati, in refusing to issue a marriage license to epileptics, is being widely commented upon, but certainly is based upon the soundest common sense.

Our contemporaries generally accord the Judge the very highest praise for the far-seeing wisdom which has led him to take this “noble stand against one of the most efficient causes for the extension of one of the most incurable and degenerative diseases.”

Surely with the knowledge that is now so common regarding epilepsy and certain other diseases of analogous character, it is high time the legislatures of the States took some action to prevent not only marriage but cohabitation where the result would lead to perpetuating of maladies of this character. And such laws should be extended so as to cover syphilis and other diseases that exemplify the truth of the proverb:

“The fathers have eaten sour grapes, and the children’s teeth are set on edge!”

DIARRHŒAS OF CHILDREN.

Dr. J. E. Thompson, of Chihuahua, Mexico, recommends the following mixture:

R Creosote, 2 minims.
Oxide of zinc, 80 grains.
Mucilage of gum Arabic, 2 ounces.

A teaspoonful as often as required.

When the mixture is well borne and intestinal fermentation is very great—as indicated by soapsuds-like discharges—he frequently adds a drachm of camphorated tincture of opium and half a drachm of fluid extract of ipecac, but advises that opium be used very carefully. He is also in the habit of giving, just before the child takes nourishment, from three to five grains of Taka-Diastase.

AN ADVANCE IN ROENTGEN’S PHOTOGRAPHY.

Professor John MacIntyre writes *Nature* that he has been pursuing the study of photography of the soft tissues in the living subject, and made attempts to see shadows thereof in the fluorescent screen. Success attended his efforts as regards the neck, the tongue, hyoid bone, larynx, etc., and recently he has been able to photograph and see shadows of the cardiac area. In one photograph taken, the diaphragm was clearly indicated. The pyriform shape of the cardiac

area is well shown, the base downwards, apex upwards, and the right and left borders of the photograph showing the relationship of the spine and ribs.

EDITORIAL NOTES.

International Congress of Psychology.—

The provisional programme of the meeting to be held in Munich, Bavaria, August 4th to 7th, under the presidency of Professor Doctor Stumpf, shows that there is likely to be a plethora of papers on all branches of the science of mind. Eminent psychologists from many parts of the world have sent contributions, among others M. E. Bértillon, of Paris; Bernheim, of Nancy; Alfred Binet, Paris; Delbœuf, Liege; Ebbinghaus, Breslau; Sigismund Exner, Vienna; Stanley Hall, Worcester, Mass.; E. Hering, Prague; P. Janet, Paris; Th. Lipps, Munich; W. Preyer, Wiesbaden; Th. Ribot, Paris; C. Richet, Paris; H. Sidgwick, Cambridge, England; G. H. Stout, Cambridge, England; Carl Stumpf, Berlin; and W. Wundt, Leipzig. Details as to the arrangements of the Congress, which promises to be truly international in membership and broad in scope, may be obtained from the General Secretary, Doctor Frhr. von Schrenck-Notzing, Max Joseph-str. 2-1, Munich.

A New Life Buoy.—

A German naval captain has invented a new life buoy. It consists of a large cork raft capable of floating three persons, and provided with a kind of net which offers a support to their feet. Its principal feature, however, is that it is fitted with an electric light, fed by a small accumulator which can be readily charged, without dismounting it, from the electric plant with which most large vessels are now fitted. It will store sufficient electricity to keep the lamp alight for twenty-four hours. The lamp is arranged so that it will always remain in a vertical position, independently of the oscillations of the buoy, and is placed at a height of forty inches above the water level, thus rendering the buoy conspicuous at night for two and a half miles all round. Underneath it is a recep-

tacle containing a small supply of provisions and water, an alarm-whistle, and a switch for turning off the electricity in daylight.

Buncombe in Medical Journals.—

One of our Kansas brethren recently delivered himself of a paper in which he declared the obstetrician's "first and paramount duty when called to a patient is to ascertain if she is actually pregnant." Commenting upon the same, Doctor Moore in the *Kansas City Medical Record* remarks this is a "timely suggestion; that obstetricians who deliver a non-pregnant woman should be convicted of witchcraft and publicly ducked."

Canadian Medical Association.—

This Association meets at Montreal on August 26th, 27th, and 28th, when it is expected there will be the largest gathering that has been held for years. The Montreal men have an affection for the Canadian Medical Association, and will do everything in their power to make the gathering a brilliant success.

Archives of Clinical Skiagraphy.—

The first number of this new journal is out, the editor being Mr. Sydney Rowland. It presents a series of collotype illustrations, with descriptive text, illustrating applications of the new photography to medicine and surgery.

Cretinism.—

W. Rushton Parker, in the *British Medical Journal*, reports a case of cretinism cured by a year's use of thyroid extract, the average dose of which was five grains once daily. The child was one year old when the treatment began.

Ergot in Enlarged Spleen.—

Doctor R. Walker, of Madras, writes that he relieved an enormous enlargement of the spleen by the internal administration of fluid extract ergot.

Celluloid Glass-coating.—

Add to collodion ten per cent. of camphor and two per cent. of castor oil; then float the solution over clean glass plates, and allow to dry.

Items and News.

The Death of a Medical Centenarian.—

Mr. William Reynold Salmon, whose death occurred in the second week of May, had reached the extraordinary age of 106 years, having been born on March 16th, 1790, a fact of which ample documentary evidence exists. He was admitted a Member of the Royal College of Surgeons, England, as long ago as the year 1812; he was, therefore, by far the oldest member of that body. His death has certainly severed a wonderful link with the past. For example, when he was about twenty-four years of age the battle of Trafalgar was fought, and he remembered well the profound sensation caused in this country by Nelson's death. Again, he was one of the earliest arrivals in Paris after the news had been received there of Wellington's crowning achievement at Waterloo. The battlefield had more attractions for him than the fascinations of the capital, and he at once made his way to Brussels to find one-half of the city a hospital; afterwards he explored the scene of the great encounter while there were yet bodies unburied and survivors to tell from their own knowledge how the field was fought. Another point of interest in his life was that he was the oldest Freemason in Great Britain, having been one of the original members of the "Jerusalem Lodge" in London; it has not been possible to ascertain the exact date of his initiation, although there are records showing his membership in the lodge. Curiously enough, at the age of ninety he took to smoking, but the habit disagreed with him and he soon gave it up, and ever afterwards could scarcely tolerate even the smell of tobacco smoke. In 1816 he married an heiress under romantic circumstances, and from that time he had no need to continue practicing his profession. Thenceforward for many years his chief pastime was traveling; most of his time was spent in London or on the Continent, while he paid only occasional visits to his Glamorganshire estate, to which he finally retired at the age of seventy. His wife died many years ago. He has left an invalid daughter whose son will inherit the property.—*Medical Press and Circular*.

A Nut for the Anti-vaccinationists.—

An instructive case for the consideration of anti-vaccinationists is reported in the *Times* (London). It appears that the guardians of the Gloucester Union have for some years persistently neglected to perform their

statutory duty under the Vaccination Acts, with the result that they now find themselves responsible for one of the most appalling outbreaks of smallpox which has for a long series of years visited any provincial town in England. During the last seven weeks the notifications of fresh cases of smallpox in the cathedral city of Gloucester have enormously increased, the number of new cases during the past week being no less than 154, and the disease is still rapidly spreading. The guardians are now endeavoring to stem the disastrous torrent they have let into Gloucester by their non-compliance with the laws of vaccination. About a week since they decided to attempt to undo the mischief of past years by passing a resolution deciding to enforce the compulsory clauses of the Vaccination Acts. It may be stated that the Town Council of Gloucester from the first have done their utmost by isolating the sick in hospital, by disinfecting houses, burning clothes and bedding, and placing relatives of sick in practical quarantine, to stay the outbreak. Finding the outbreak gaining, they built extra hospitals, and have now hospitals for 120 patients, but the disease has continued to spread with such virulence that it is quite beyond their power to cope with it. A significant fact is that out of ninety deaths that have occurred in hospital up to March 27th, seventy-four were of unvaccinated persons.—*Nature*.

The Cathode Rays and the Aurora Borealis.—

An extremely interesting series of experiments on the action of a powerful magnetic field on the cathodic rays in Crookes' or Hittorf's tubes, is described by Herr Kr. Birkeland in the *Electroteknisk Tidsskrift* (Christiania, Sweden). These experiments prove that in such a field the cathode rays are strongly deflected in the direction of the lines of force, and can even be concentrated on to the surface of the tube until the glass melts. Moreover, the evidence suggests that the rays which emanate from one and the same cathode fall into groups, of which the physical constants are connected by some definite law, just as are the frequencies of the different tones emitted by a vibrating rod. The investigation has an important bearing on the theory of the aurora borealis. The Danish meteorologist, Mr. A. Paulsen, is of opinion that the aurora owes its origin to phosphorescence of the air produced by cathodic rays in the upper atmospheric strata, and M. Birkeland suggests that the earth's magnetism may be the cause of this phosphorescence becoming intensified in the neighborhood of the terrestrial pole.—*Nature*.

Curiosity in Longevity.—

Mrs. B—, born in 1630 (five years after the accession of Charles I.), died March 13th, 1732. She was attended in her last illness by her great granddaughter, Miss Jane C—, born 1718, died 1807, and Miss Sarah C—, born 1725, died 1811. A great-niece of one of these two ladies, Mrs. W—, who remembers one of them, was born in 1803, and is at the present time alive and well. It will be seen from the above facts that there are three lives only to bridge over the long period between 1630 and 1896, and that there is at present living a lady who personally knew Miss C—, who had nursed a relative born in 1630. The last lady of this remarkable trio is hale and hearty, and has just successfully undergone an operation for cataract.—*Hospital Gazette*.

Removal of Stains.—

Tar can be taken off with petroleum.

Paints will disappear before turpentine and perseverance.

For iron mould, spread the stained part on a pewter plate set over a basin of boiling water, and rub the spots with bruised sorrel leaves, then wash the article in soft warm suds; or, cover the spots with a paste made of lemon-juice, salt, powdered starch, and soft soap, and expose to the sunlight.—*Medical and Surgical Reporter*.

Appendicitis.—

I am not always in a great hurry to operate, but am more inclined to wait for the acute symptoms to wear off, and operate, if at all, after suppuration has taken place, or during the quiescent stage between the attacks. I wish my voice was potent enough to restrain those who say, "Operate at once—not this afternoon or to-morrow, but now," in all cases when the disease is recognized.—HUNTER MCGUIRE.

Horse Flesh in America.—

Although there are several factories in the vicinity of New York devoted to the preparation of horse-meat for food, the Board of Health says not an ounce is sold in the city unless it be in the shape of sausage. It is also stated that the flesh of the horse is easily detected by the usual iodine test for starch, which it contains in contradistinction to all other butchers' meat.—*Medical News*.

Toxicity of Acetylene.—

Experiments conducted by Gréhaut indicate that acetylene is much less poisonous than illuminating gas.

Book Reviews.

THE ROYAL NATURAL HISTORY. Edited by Richard Lydekker, B.A., F.R.S., F.Z.S. Paper; 8vo; pp. 96. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

Numbers 5 and 6 of Volume IV are before us; also Number 1 of Volume V.

The first issue—April 1st, 1896—completes the monograph on Pigeons and Sand-grouse by Mr. W. R. Ogilvie Grant. Then come the Game Birds, including grouse, ptarmigan, partridges, turkeys, guinea-fowl, etc. Next the Rail Tribe—water-hens, coots, bustards, thick-knees, and cranes. Chapter XIX opens with the Plover group, which is continued in the next number—April 15th—including the lapwings, curlews, sandpipes, woodcock, and snipe. Then follow in succession the water pheasants, terns, and gulls; next the tube-nosed birds—albatross and petrels; then the divers—auks and penguins; finally a chapter on Flightless Birds, including ostriches, rheas, etc., besides extinct forms.

The May 1st issue—the initial number of Volume V—contains instructions for binding the previous volumes, followed by a chapter on the general characteristics, classification, and distribution of reptiles. Next follow the Crocodiles, with an interesting description of extinct varieties. Then come the Land Tortoises and the Scaled Reptiles—lizards, chameleons, geckos, and agamas. These are followed by the Aguna group, or snake-like lizards, and next the true lizards. The initial chapter on Snakes opens with the general characteristics and description of pythons and boas, completing this number.

The illustrations of these three issues are remarkable for their fidelity and clean-cut character. The oil plates are respectively Golden Pheasants, East African Balearic Crane, Giant Penguins, Ostriches, Rattlesnake and Cobras, and Water Monitor, any one of which is enough to tempt one to remove it from the volume for purposes of framing.

PRACTICE OF MEDICINE. By I. J. M. Goss, A.M., M.D. Cloth; 8vo; pp. 569. The W. T. Keener Co., Chicago.

This is a work of more than ordinary value. Doctor Goss is an Eclectic, but is very far from being hidebound or committed to any special pathy or ism—it is evident that predilections have in no way swayed his judgment; and while he avoids extremes he affords the reader concise, hard-headed information that is the result of forty-five years of practical experience. He does not claim perfection for his work, in the healing art or in any other way, but merely that it is an attempt to add some new facts to the long-accumulating fund of therapeutic lore. Notably, he condemns all routine methods of treatment as being not alone unscien-

tific but dangerous, and bases his teaching on the belief that success in medicine can be attained *only* by special recognition of the pathological peculiarities that exist in each malady, and in suiting the remedy to the condition. He especially recommends more concentrated fluid remedies, giving preference to normal liquids and fluid extracts. An aphorism Doctor Goss lays down, which is well worthy of consideration, is that the dose of a given remedy to be remedial must be short of toxic, unless the latter or physiological effects are specially desired—as when cathartics, emetics and anesthetics are prescribed.

On the whole we have enjoyed the perusal of this volume very greatly, and do not hesitate to recommend it as a valuable adjunct to every physician's library.

INFANTILE MORTALITY DURING CHILDBIRTH, AND ITS PREVENTION. By A. Brothers, B.S., M.D. Cloth; 8vo; pp. 179. Price, \$1.50. P. Blakiston, Son & Co., Philadelphia.

This is the William Furness Jenks prize essay of the College of Physicians and Surgeons of Philadelphia for 1895—a circumstance which evidences far more than anything we might write the character and value of the work. The author calls especial attention to the fact that with all the dangers of childbirth the mother receives every attention while her new-born or yet-to-be-born child receives little; in other words, the sacrifice of the child counts for little or nothing. The author believes that the time will arrive when the sacrifice of living children by operations like craniotomy, evisceration, etc., will be buried in the gloomy depths of the past, and many a useful member of society now doomed to death before having had an opportunity to draw a single breath will be added to the community at large.

The object of the work is to make a careful bird's-eye view of the entire subject of the prevention of infantile mortality during childbirth, without giving a detailed account such as is required for text-books, and at the same time to point out the advances made in recent years in the interests of the infant during the critical hours of actual labor and in the earliest period of its life succeeding labor.

A HIDDEN CHAIN. By Dora Russell. Paper; 16mo; pp. 286. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 238 of the Globe Library, and is certainly far from being the least interesting of the series. The tale is somewhat unconventional. A young lord falls in love with a woman, saves her life, wins both her devotion and affection, and proposes to her, knowing nothing of her past. The lady finally consents on condition the ceremony shall be secret. Shortly after appears upon the scene a former husband—supposed to be dead. Then follows a series of persecutions which are

added to by the infatuation of the heroine's banker, who, having been repulsed by the lady, in revenge informs her first husband of her whereabouts. She is kidnapped, incarcerated in a lonesome house, escapes by a mere accident, and dies in childbirth in the arms of her lover. Altogether we have a picture of an unfortunate, lovable, innocent woman, and the trials and tribulations of herself and her lover.

THERAPEUTICS OF INFANCY AND CHILDHOOD. By A. Jacobi. Cloth; 8vo; pp. 518. J. B. Lippincott Co., Philadelphia.

A work with this title and from such a source hardly needs commendation. This much, however, must be said for the volume: it offers in concise and readily available form a very complete epitome of the therapeutics of infancy and childhood, delineated in a most practical manner. Unfortunately most works devoted to pædiatrics are voluminous and verbose, requiring an enormous amount of research in order to attain understanding of a small number of facts. For this very reason it is manifest Doctor Jacobi's work has a place which can be filled by no other. Moreover, the style in which it is written renders it most attractively interesting. To be sure, much of the material has appeared from Doctor Jacobi's pen before, but all this has been elaborated, revised, and brought fully up to date.

PRETTY MICHAŁ. By Maurus Jokai. Paper; pp. 334. Price, 25 cents. Rand, McNally & Co., Chicago.

This certainly is a very peculiar and interesting tale, and deals with the daughter of a clergyman who has been brought up without knowledge of the world or of her own sex, highly educated, and forced into marriage with a clergyman, the son of a professional executioner and torturer—though this, owing to deceit, was not known. She finally flies to her real lover, and eventually pays the penalty of the crime, and yet all sympathy is with the woman who is more sinned against than sinning. The whole tale gives a most excellent idea of the status of society in Hungary and Transylvania in the middle of the seventeenth century.

THE HEART OF A MYSTERY. By T. W. Speight. Paper; 12mo; pp. 331. Price, 50 cents. R. F. Fenno & Co., New York.

This is No. 14 of the Fenno "Select Series." It is a volume the merits of which are far above the average—the characters are admirably drawn, appearing as living people and standing out in solid relief amid the shadowy unsubstantial hosts that appear in the majority of modern works of fiction. The incidents and *mise-en-scène* are decidedly fresh, and the conversations brisk and to the point; moreover, the volume combines adequate knowledge of the world with a high degree of literary skill. We predict a hearty reception for this work.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, AND CONTIGUOUS TEXTURES. By S. G. Gant, M.D. Cloth; 8vo; pp. 400. Price, \$3.50. The F. A. Davis Co., Philadelphia.

This is a very interesting work, the more so as the illustrations are all new and original. It contains two important chapters that have never appeared in any work of this kind, viz., Railroadings as an *Ætiological Factor* in Rectal Disease, and the Relations of Auto-intoxication from the Intestinal Canal to diseases of the class treated. The contents of the work are comprehensive, complete and practical, and withal concise.

THE INTERNATIONAL MEDICAL ANNUAL. Cloth; 12mo; pp. 728. Price, \$2.75. E. B. Treat, New York.

This is the fourteenth year of this Annual, which offers a very complete *résumé* of medical progress for the year 1895. A glance at the synopsis of contents evidences that the wealth of material equals that of any of its predecessors. Those who have had the former volumes cannot afford to be without this.

DON'TS FOR CONSUMPTIVES. By Charles W. Ingraham. Cloth; 12mo; pp. 218. Published by the Author, Binghamton, N. Y.

This volume embraces a great deal of desirable information in readily available form for either student or patient. It is unfortunate, however, that it is so badly bound, badly printed, and upon such inferior paper, which will necessarily detract materially from its sale.

FORMULAIRE AIDE D'MEMOIRE. By Doctor Fernand Roux. Paper; 24mo; pp. 423. G. Steinheil, Paris.

This is the fourth edition of this excellent little reference volume, which cannot be too highly commended. It outlines in a very concise manner those points in therapeutics that are deemed by French authorities most available and most practicable.

THE KNOWN HEREDITY OF INEBRIETY. By Leslie E. Keeley, M.D. Cloth; 16mo; pp. 356. S. C. Griggs, Chicago.

This is a mere jumble of make-believe pathology, to which is added a defense and argument for the questionable procedures advocated by the author. It is about as petty a pot-boiler as we have seen in many a day.

MISKEL. By L. M. Phillips. Paper; 16mo; pp. 266. Price, 50 cents. Bailey & Fairchild Co., New York.

This is emphatically a tale of the occult, and carries its readers from North America to Central

India and back again, giving vivid descriptions of hypnotic and occult séances. Through all is woven a tale of love and woe.

THREE ETHICAL CODES. Cloth; 24mo; pp. 55. Price, 50 cents. Illustrated Medical Journal Co., Detroit.

This embodies the codes of the American Medical Association, American Institute of Homœopathy, and National Eclectic Medical Society, and a comparison will undoubtedly be of interest to the profession.

DIETS FOR INFANTS AND CHILDREN IN HEALTH AND DISEASE. By Louis Starr, M.D. Flexible morocco; 16mo. Price, \$1.25. W. B. Saunders, Philadelphia.

This is simply a volume of blanks for carrying in the pocket.

THE BADMINTON MAGAZINE. Edited by A. E. J. Watson. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

Again this delightful monthly appears on our table. The June contents are: "The Royal Military Tournament," by Major J. S. S. Barker, R.A.; "The Amazons of Shingleford," by Anthony C. Deane; "Trout-fishing in Spain," by Marie Duncan; "Lion-hunting," by Lord Delamere—a paper that also incidentally deals with the characteristics of that little-known creature denominated "wart-hog;" "A Race in the Solent," by Admiral the Honorable Victor Montagu; "Cycling in the High Alps," by Charles F. Simond; "The Ethics of Modern Gunnery," by Abel Chapman; "Stag and Chamois Hunting in Austria," by Count Schlick; "Polo Prospects in 1896," by Cuthbert Bradley; "Amusements Under Cover," by William Pigott; "On a Flintlock and its Owner"—a sketch of modern Greece,—by Neil Wynn Williams; "Sporting Prints"—No. VI,—embodying a sharp and just criticism of the "Gentleman's Recreation," a much-cribbed volume published by Richard Bloom in 1686; and the usual "Notes" by "Rapier." The illustrations, which cannot be excelled and are rarely equalled, are from the pencils of Lieutenant-Colonel R. S. S. Baden-Powell, F. S. Wilson, Lucien Davis, E. Caldwell, R. T. Pritchell, N. J. Gibb, Trevor Haddon, Cuthbert Bradley, G. H. Jalland, and H. M. Brock.

This number, which also contains title-page and index, completes Volume Two.

LITTELL'S LIVING AGE. Price, 15 cents; \$6.00 per year. Littell & Co., Boston.

For more than half a century the *Living Age* has been republishing the best and most important papers, biographies, etc., to be found in the foreign magazines, quarterlies, and literary weeklies. The following in the latest issues are worthy of special mention: "Czar and Emperor," by Karl Bind; "Slatin Pasha and the Sudan," by Captain F. D. Lugard; "Matthew Arnold," by Frederic Harrison; "Nature in the Earlier Roman Poets," by Evelyn M. Cesaresco; "Jean Baptiste and his Language," by Howard A. Kennedy; "Stray Thoughts on South Africa," by Olive Schreiner; "A Heroine of the Re-

naissance," by Helen Zimmern; "A Winter's Day in Midforest," by Fred. Whishaw; and "The Story of an Amateur Revolution," by a Johannesburg Resident. In fiction, Mary E. Mann contributes a short story.

THE JOURNAL OF COMPARATIVE NEUROLOGY. Price, \$1.00; \$3.50 per year. C. L. Herrick, Grandville, Ohio.

The March issue, which is the initial number of Volume VI, opens with "Illustrations of Central Atrophy after Eye Injury," followed by "Lecture Notes on Attention," by C. L. Herrick; "A Note on the Cerebral Formation of the Seal" is by Pierre A. Fish, B.Sc.; "Morphology of the Nervous System," by C. H. Turner; "Preliminary Notes on the Cranial Nerves of *Cryptobranchus Alleghaniensis*," by J. H. McGregor, B.Sc.; "Three Points in the Nervous Anatomy of Amphibians," by J. S. Kingsley. All these papers are carefully illustrated. There are the usual Literary Notes, etc.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

The June issue opens with a contribution by J. E. Todd entitled "Log-like Concretions and Fossil Shores." "The Ancestry of the Upper Devonian Placoderms of Ohio" is by E. W. Claypole; "On the Validity of the Family Bohemillidae, Barrande," by C. E. Beecher; "The Volcanic Tuffs of Ségalas (Ariege), by A. Lacroix; "Frozen Streams of the Iowa Drift Border," by A. G. Wilson; "Sublacustrine Till," by Warren Upham; "Notice of Some Syenitic Rocks from California," by H. W. Turner. There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The June 13th issue contains: "The Language of Values;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture"—VII; "A Bill to Protect Mechanics;" "In Streets and Papers;" "An Incident of the St. Louis Tornado;" "The Architect's Use of Color;" "Needs of Technical Schools;" "Legal Notes;" "A Lighthouse with Reflected Light;" "Architectural Degrees at Columbia University;" "Civil Service Examination;" "Societies;" "Personal;" "Current Notes;" "Industrial Progress."

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 20 cents; \$2.00 per year. The Monthly Illustrator Publishing Co., New York.

Contents for June are: "Eminent American Artists" (v); "From Cuxhaven to Constantinople;" "The Montpellier of the North;" "Men and Women of the Hour;" "Plotting Against a Czar;" "The Choquard Farm;" "A Midland Millet—Charles C. Svendsen;" "Modern Schools of Painting;" "As Through an Opera Glass;" "Early Animal Painters;" "Not His Brother's Wife;" "Ether Waves;" "The Public Library and Public Morality."

AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

Contents for June: "A New Factor in Evolution," by J. Mark Baldwin; "The Path of the Water Current in Cucumber Plants" (continued),

by Erwin F. Smith; "Extensive Migration in Birds as a Check upon the Production of Geographical Varieties," by Thomas H. Montgomery, Jr.; "The Plant Geography of Germany," by Roscoe Pound. There are the usual departments devoted to Petrography, Geology, Paleontology, Botany, Vegetable Physiology, Zoology, Entomology, Embryology, Psychology, Anthropology, etc.

NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Co., New York.

In the June issue Andrew Carnegie writes of "The Ship of State Adrift;" J. H. Senner of "Immigration from Italy;" H. Taylor of "England's Colonial Empire;" I. C. Parker of "How to Arrest the Increase of Homicides." Other notable papers are: "The Outlook for Silver;" "Progress of Theosophy;" "Dreams and Their Mysteries;" "The Future Life and the Condition of Man Therein;" and "The Truth About the Opium War."

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. The Ontario Publishing Co., Toronto.

The June number contains: "The Daily Newspaper," by J. T. Clark; "Hunting for Jacques Cartier," by Kate W. Yeigh; "A Canadian Bicycle in Europe" (III), by Constance R. Boulton; "Kate Carnegie" (continued), by Ian Maclaren; "Doctor Oronhyatekha," by Mary T. Bayard; "Bombastes Furioso," by Helene E. F. Potts; "The New County Council," by J. M. McEvoy; "A Kitchen Affair," by Valance Berryman; "The Colonies and the Navy," by A. H. Loring.

THE UNITED SERVICE. Price, 25 cents; \$2.00 per year. L. R. Hammersly & Co., Philadelphia.

The June number contains "Reminiscences of Napoleon Bonaparte at St. Helena," by Alfred L. Royce; "What Our Cavalry in Mexico Did, and Did Not Do, and Other Things," by William B. Lane; "The Story of a Volunteer," by H. L. Hawthorne; "Bacon and Shakespeare," by David G. Adee; "Earth's Centre of Gravity," by William H. Shock; "Naval and Military Notes," by L. S. Van Duzer; "Service Salad;" "Rear-Admiral Thomas H. Stevens, U.S.N."

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

The notable articles in the June issue are: "John Boyle O'Reilly;" "The Captain's Adventure;" "Malmaison;" "Maine's Naval Lexington;" "The Cause of Oliver Plunkett;" "The Man who Makes the Newspaper;" "The Church in the Bahamas;" "Music as a Profession for Women;" "Preserving the Old California Missions;" "Uncle Baltazza;" "A Sicilian Vesper;" and "Mary of the Nation."

AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. Anthropological Society, Washington.

In the June number Otis T. Mason writes of the "Introduction of the Iron Age into America." There are the usual "Notes and News," "Book Reviews," "Abstracts of Minutes," and "Bibliography of Anthropologic Literature."

Therapeutic Brevities.

Hot Water in Surgery.—In sprains, as soon as possible after the accident, I apply a rubber band—not too tightly for comfort; then each morning and evening the bandage is temporarily removed and the joint subjected to the hot-water treatment—it is plunged into a bath, the temperature of which is gradually raised from 118° to 126° F. Under the influence of heat the pain subsides very materially and the circulation and nutritive changes become more active. Ten or twelve minutes of this treatment will render the joint more supple and movable. In addition to the application of hot water, massage is also made use of to aid in producing absorption of the effusion. Unless the sprain is exceptionally severe, recovery is obtained within a fortnight.

In acute prostatitis, the nozzle of an irrigating syringe—the latter filled with water at a temperature of 130° to 140° F.—is introduced slowly and carefully into the anus, and the fluid allowed to gradually escape and bathe the prostate. This treatment is repeated twice a day until complete recovery is obtained. There is almost immediate improvement.

In the treatment of pelvic troubles, hot water is largely employed, but I prefer rectal to vaginal irrigations. Vaginal injections are used for cleansing purposes (with curettage, etc., if necessary), but this is all the benefit derived therefrom, as they produce little or no effect on the congestion of the uterus and appendages. There should be an accumulation of hot water in the ampulla of the rectum, into which the internal genital organs project, the enema being employed in the morning about half an hour before rising; the temperature of the water should be at least 130° F. Let the fluid pass very slowly into the bowel, thus preventing muscular contraction of the rectum; in this manner as well, a larger quantity of water can be introduced. The enema, if possible, should be retained for half an hour, and repeated each morning during the treatment.

Hot water is also an efficient sterilizer in washing the skin before operations, and antiseptics gain in potency by being added thereto. The method of treating extensive injuries of limbs in a conservative manner is, to relieve collapse, disinfect the part injured, and then irrigate with water at a temperature of 140° F.

The advantages derived from using hot water at this temperature are antiseptic, hæmostatic, and the restoration of heat to the injured part and system. The injured

part is then wrapped in antiseptic dressings, and the necrosed parts allowed to separate.

Again, the use of water at a temperature of 130° F. is to be recommended as an hourly gargle in sore throat and tonsillitis. In some cases of inflamed hæmorrhoids hot water is also advantageous.—DOCTOR RÉCLUS.

Therapeutics of Glycosuria.—The rational therapeutics of this condition is summed up in dietetic management. Further than this there is only empiricism based on the theory of the origin of the disease for a guide. The non-combustion of carbohydrates is probably the starting-point in all cases. Two measures thus suggest themselves: the withdrawal of carbohydrates from the diet; and the quickening of their transformation. No drug yet discovered answers the second indication, although there is an endless list of remedies vaunted to accomplish this result. All have been used in connection with restricted diet, and the benefit accruing has probably been due to the latter. Iron and alkalies undoubtedly have the power to promote oxydation in the living body, and it is interesting to note that they are as valuable in lithæmia as in glycosuria; but they require to be accompanied by restricted diet. It is in the cases of gouty habit that the alkalies do most good. The inhalation of oxygen, and enforced exercise with a view to stimulating oxydation, have failed. One who has seen much of diabetes knows how valuable opium is. There is little question that opium in some form, in combination with alkalies, constitutes the best method of controlling the sufferings of the patient if not the progress of his disease. The principle of dietetic treatment is to convert the individual from an omnivorous into a carnivorous animal, and with the art of cooking this can be accomplished with less discomfort than one would naturally suppose.—DRAPER, before the New York Academy of Medicine.

Calaya in Malaria.—Maurage, of Paris, makes use of extract of *Anneslea febrifuga*, known as calaya, a leguminous plant, in malarial patients from Madagascar and Tonquin. Four doses of about half a drachm each were administered in syrup at intervals of two hours. The first dose always produced a diminution of the temperature varying from 1.4° to 2.5° F. After the second dose the temperature fell still further. This antipyretic action was not accompanied by any sweating or by depression; on the contrary, the patients expressed themselves as feeling far better than they had done when

they had been given quinine in previous attacks. The temperature never fell below normal. In three of the nine cases no return of the fever occurred. In five there were subsequent attacks of a very mild character, the temperature never exceeding 101.5° , while in one case only there was a somewhat severe attack two days later in which the temperature rose to 104.7° ; the treatment was, therefore, repeated, with the result that no further attacks occurred. The same medicine was tried in two cases of phthisis, but here, though the antipyretic effect of the drug was manifested, the fever returned the day following just as before. Doctor Maurage therefore thinks that calaya cannot be considered as more than a palliative in non-malarial fevers, but that in malaria it may really be put down as a specific.—*The Lancet* (London).

Hæmoptysis.—*Geranium maculatum* is of great value in the treatment of hæmoptysis. Its hæmostatic action does not seem to depend entirely on the tannic and gallic acids it contains, since the administration of either acid, alone or combined with the other, did not yield the same result.

I prescribe from two to five drops of the tincture, repeated every two hours, upon the first signs of blood in the sputum; and the results have been uniformly good. A few doses generally suffice to stop the flow, and only in cases of long standing has it been necessary to continue the treatment over any length of time.

One case of phthisis pulmonalis, admitted with a history of continued expectoration of blood for four days, and which within twelve hours previous to entrance had lost a cupful of bright red blood, was treated with this remedy; and although within twelve hours a second hæmorrhage occurred, during which three ounces of blood were lost, no further trouble was experienced for at least ten days, when a few streaks were noticed, and promptly caused to disappear by a few more doses of the tincture. Fifty cases have been thus treated in the Metropolitan Hospital, New York, and only in one did the treatment fail.—WENDT, in *New York Medical Times*.

Intestinal Worms.—Anthelmintics are usually irritants, and in many of those diseases which simulate the verminous affection, but are distinct from it, there is already an irritated, if not an inflamed, state of the intestinal mucous membrane. Vermifuges under such circumstances obviously do harm. Many lives are lost by the use of anthelmintic nostrums, which are extensively advertised and

command a ready sale, inasmuch as the belief in the presence of worms as a frequent cause of disease pervades all classes.

A safe rule—and it would be better if it were general—is, not to give anthelmintic unless the child has passed one or more worms, or their ova be found in the fæces and not then if the symptoms be referable to a coexisting disease. In doubtful cases in which the symptoms resemble those of worms, a purgative dose of calomel, or calomel and rhubarb, may be employed, which will generally bring away one or more lumbrici or a mass of ascarides vermicularis, if either species of entozoa be present.—This purgative may be safely employed if there has been no previous diarrhoea or debility. If, after one or two doses and a free purgation, no worms be passed, anthelmintic remedies should not be given.—J. LEWIS SMITH.

Alcoholism and Strychnine.—We have in nitrate of strychnine a remedy for alcoholism that is safer and at the same time gives as good results as the gold-cure, Keeley cure, silver-ash cure, etc. It is a treatment that is no secret and can be used by the profession generally. This drug removes the desire for alcoholic stimulation for, as yet, an undetermined length of time, without the least effort on the part of the patient; though of course it cannot oblige a man to abstain if he is determined to continue the use of alcohol. Nitrate of strychnine removes the distress and gnawing at the epigastrium so common upon the withdrawal of alcohol; it tones up the nervous system and allays tremulousness and uncertainty of voluntary motion; it restores the appetite and general physical vigor, and is incidentally a good heart tonic. These latter effects restore hope and self-confidence in the patient, and these in turn aid much in his recovery.—DOCTOR BREED, in *Medical News*.

Paroxysmal Headaches.—In three cases of periodic headaches I had occasion to test the efficacy of ergot, as recommended in this morbid condition by Thomson. The subjects were of a more or less nervous temperament, and had suffered for a considerable time from frequent and violent attacks of headache; they gave no history of malaria. Quinine, as well as most of the analgesics and antinervines known, had been tried in vain, when I began to administer ergot. The beneficial effect soon became manifest. The patients were completely cured after having taken daily one drachm of fluid extract ergot

mixed with three drachms elixir of cinchona, for three consecutive days. This did not occasion nausea or vomiting, which fact I ascribe to the circumstance that I employed three times as much elixir cinchona as fluid extract ergot.—CAPPELLARI, in *La Semaine Médicale*.

Hæmorrhoids.—An ointment composed of equal parts of subnitrate of bismuth and castor oil. Keep the parts perfectly clean, and apply well into the rectum. It gives immediate relief.—J. D. PETERS, in *Chicago Medical Times*.

* * *

R Fluid extract belladonna, 1 drachm.
Fluid extract horse-chestnut, 1 drachm.
Tannic acid, 10 grains.
Vaselin, 2 ounces.

Apply this ointment to the inflamed parts twice or thrice during the twenty-four hours.

—*American Practitioner and News.*

Calculus in Kidney.—Boro-tartrate of potassium is the first remedy for calculus in the pelvis of the kidney. A weak solution must be used for a long time, a strong solution being detrimental. The calculus of the kidney is formed from uric acid, and the neutral phosphatic alkaline salts are the best solvents of uric acid; therefore, to promote its elimination they would appear to be the best remedies to administer. The fruit acids are very useful, therefore abundance of fresh fruit would also be indicated for the relief and prevention of nephritic calculi.—BARTHOLOW.

Sarcoma.—Pryor is of opinion that ligation of both internal iliacs will cure pelvic sarcomata; he cites a case of cancer of the face successfully operated upon by ligation of both external carotids. Bryant, of England, and Corley, of Ireland, have both performed the same operation. Recently in New York a patient was operated upon by Damborn for cancer of the superior maxilla, both carotids being tied, and the tumor has already about disappeared; but whether the cure will be permanent is another question.—*Alabama Medical and Surgical Age*.

Urinary Retention.—Remy recommends tapping the bladder with a cannula just above the pubes in cases in which the retention is caused by enlarged prostate.—A trocar of medium size should be used. A small, soft catheter is introduced through the can-

nula before* it is withdrawn; the cannula being then slipped out, the catheter is retained until the swelling of the prostate subsides so that the bladder can be entered through the urethra and drained through the normal channel.—*St. Louis Medical and Surgical Journal*.

Poisoning by Bismuth Subnitrate.—This drug is often used for dressing burns and wounds, and Gaucher and Balli have noticed unfavorable symptoms following its use, notably a more or less intense stomatitis, dysphagia, vomiting and diarrhœa; the urine may be darkened and contain albumen.

This action of the drug is curious, because it may be given internally in almost any dose without causing the least systemic or local disturbance.—*Revue de Médecine de Louvain*.

Local Treatment of Carbuncle.—Moist cane-sugar ("foots") spread over the surface of a hot linseed-meal poultice, and repeated several times daily, quickly softens the hard, brawny, inflamed tissue, causes free discharge, and facilitates the healing process. I have treated several cases in this simple manner most successfully, and since adopting it have not resorted to any cutting operation.—DOCTOR RICHARDSON, in *The Lancet* (London).

Spina Bifida Relieved by Excision.—Patient two months of age; tumor nearly as large as a cocoanut. As tapping had failed to relieve the condition, the operation was undertaken. Both the sac-wall and the skin were tied with silkworm-gut sutures. Excepting some fever on the second day, and paralysis of the bladder extending over three days, the child made an excellent recovery.—DOCTOR BALDWIN, in *British Medical Journal*.

Rickets.—Employ a combination of yolk of egg and olive- or cottonseed-oil made into an emulsion:

R Olive oil, 2 ounces.
Glycerin, 1 ounce.
Yolk of one egg.

Add four minims of creosote to each ounce of emulsion.

—*Polyclinic.*

Gonorrhœal Rheumatism.—After having diligently tried the various medicaments for gonorrhœal rheumatism, I have arrived at the opinion that mercury, by hypodermatic injection, or inunction over the articulation,

stands in the front rank. It seems to have an elective action for the poison of the disease.—DECHARD, in *Journal de Médecine de Paris*.

Electricity in Amenorrhœa.—The faradic current is the most successful means of treating amenorrhœa, and the poles should be allowed to act inside the uterus. The current can be increased at each sitting, the number required ranging from five to thirty. I have successfully treated eighteen cases.—PANECKI, in *Therapeutische Monatshefte*.

Cactus Grandiflora.—This species of cactus, when the tincture is made of the flower, acts charmingly upon the diseased heart. If there is a constriction about the heart, give fifteen or twenty minims of this tincture every fifteen minutes until it relieves. It is valuable in stricture of the œsophagus and of the neck of the bladder.—*Texas Medical Journal*.

Favus.—Thoroughly cleanse the head with a solution of potassic soap; then, after shaving (which in the case of an abundant hair-growth should be repeated every second or third day), freely apply a mixture of equal parts of carbolic acid and balsam Peru in ten parts each of petroleum and glycerin.—*British Medical Journal*.

Gonorrhœal Endometritis.—Gottschalk advises that in acute gonorrhœal endometritis no local treatment be employed. He thinks that many cases of pyosalpinx can be traced to such treatment. He also warns against the treatment of gonorrhœa in the cervical canal during pregnancy.—*Centralblatt für Gynäkologie*.

Poisoning by Kola Chocolate.—Schmey reports the case of a lady who was seized with great weakness, headache, congestion to the head, and vomiting, within an hour after eating six drops that had been made with a preparation of chocolate containing kola.—*Wiener Medizinische Presse*.

Sterilizing Cotton for Use in the Ear.—A handy way of sterilizing the cotton is to attach it to the probe, dip into an alcoholic solution of boric acid, and then hold in a flame till the alcohol is burned out—the boric acid prevents the cotton from burning.—*Exchange*.

Nephritis.—I treat by inunction with an ointment of pilocarpine nitrate, and in this way secure a purely local diaphoresis with a minimum dose of alkaloid, and without the inconveniences and dangers which sometimes attend subcutaneous injection.—MOLLIÈRE

The Gargle.—This is effective to a very limited extent in the milder throat troubles. The fault is that few physicians or patients know how to use a gargle or how to get it to the back part of the throat without danger of strangling or swallowing.—*Exchange*.

Ingrowing Toe-nail.—An attempt should first be made to save the nail. Remove all of the redundant, hypertrophied and granular tissues of the skin, apply nitrate of silver freely to the exposed surface, and leave the nail alone.—*The Practitioner* (London).

Cleft Palate.—It is not necessary to wait till a child is one or two years old to operate for cleft palate. I do not hesitate to operate on a child of three to six months if it can have the proper attention.—BROCA.

Chopparro Amargoso.—This drug belongs to the same order as quassia. It is said to be tonic in small doses, stimulant in large, and a palliative remedy in dysentery.—MIXON.

Chlorosis.—In true idiopathic chlorosis, where iron is ineffectual, sulphur will produce a marked amelioration. After using sulphur, iron can again be resorted to, and it becomes very beneficial.—SCHULTZ.

Toothache.—It is claimed that a pledget of cotton saturated with passiflora and packed into the cavity will afford immediate relief.

Thirst after Laparotomy.—Repeated small rectal injections, it is said, will relieve the intense thirst following abdominal operations.—*The Practitioner*.

Temperature in Typhoid.—A sudden decline in temperature during typhoid fever is a warning of hæmorrhage from the bowels.

Nocturnal Enuresis.—Give ergot a faithful trial.—*New York Medical Times*.

Medical Progress.

THE CONFESSIONS OF A COCAINIST.—It cannot be without medical interest to hear from the lips of a devotee, and that devotee a medical man of great mental endowments and uncommon training, some account of the manner in which he found himself affected by the continued abuse of one of the subtlest of seductive drugs, cocaine, even though his record be not so detailed as that of De Quincey or so thrilling as that of Bayard Taylor.

My patient relates how he first came to take cocaine. It was in the year 1885, when serving in the German Army. "I took it inwardly," he said, "in one-grain doses, and remember very well the marvellous effect when after marching 'par force' thirty miles in ten hours, including one hour and a half rest, I found myself, on arriving at quarters, fresh, untired, not thirsty nor hungry, but with bleeding feet." Going back to his medical studies, he had nothing more to do with the drug for some four years, though frequently brought face to face with morphinists and morphine-maniacs. In 1889, however, he was sent to relieve a country physician, whom he found lying in bed unconscious with a syringe sticking into his breast. Never in his life, he says, has he seen a more startling effect than that which then followed the injection of a twenty-per-cent. solution of cocaine. "Nearly instantaneously he sat up in bed, with perfectly clear eyes, and received me, a total stranger, in the most cordial manner." The occurrence haunted him day and night, but it was not until summoned to a late confinement some weeks later, when stiff and unable to move with lumbago, that he was weak enough to follow suit. "That night in the month of November, 1889, settled my future. Remembering well the effect of the cocaine, I took a syringe-ful (one-half centigramme) combined with morphine, and two minutes afterwards one centigramme. Five minutes later I was ready to start a couple of miles in a snowstorm." He repeated the performance before driving home again. This early repetition, taken in conjunction with the dosage, raises the suspicion as to whether, after all, he has told the truth about the date of his first injection. However this may be, he took cocaine and morphine from that time onwards, increasing the dosage to six or eight grains daily of each drug, and soon (he says within a month) came to take not less than eighty to one hundred and twenty grains of cocaine daily. His highest single dose was twenty grains, the result being that he fell

down suddenly, and remained in a cataleptic condition for some hours. His description of his symptoms is graphic, and, I think, in the main reliable:

The first feeling a cocaineist has is an indescribable excitement to do something great, to leave a mark. But, alas, this disappears as rapidly as it came, and soon every part of the body seems to cry out for a new syringe. The second sensation—at first, at least, no hallucination—is that his hearing is enormously increased, so that he really (?) hears the flies walking over the paper. Very soon every sound begins to be a remark about himself, mostly of a nasty kind, and he begins to carry on a solitary life, his only companion his beloved syringe. Every passer-by seems to talk about him. Often and often have I stopped persons, or ordered the police to arrest them, thinking they were talking about me. After a relatively short time begins the "hunting of the cocaine bug." You imagine that in your skin worms or similar things are moving along. If you touch them with wool (especially absorbent wool) they run away and disappear, only to peep cautiously out of some corner to see if there is any danger. These worms are projected only on to the cocaineist's own person or clothing. He sees them on his washing, in his skin, creeping along his penholder, but not on other people or things, and not on clothes brought clean from the laundry. How is this to be explained?

In my opinion it is a question of disturbance in the *frontal* cortex, originating, perhaps, in skin dysæsthesiæ, and not a simple visual hallucination or retinal projection. Whatever its origin, it is characteristic of the cocaine habit, and readily distinguishable from the hallucination due to alcoholic excess. The sight presented by such a patient "hunting for the cocaine bug" is one which, once seen, can scarcely ever be forgotten. In a recent case—that of the wife of a medical man—the patient was about to consult a skin specialist for this psychical hallucination! He continues:

About the same time appear many other hallucinations of the opticus, and, strange to say, self-suggested hallucinations also. Night turns to day. You sit up in your room syringing till the morning, and then fall asleep in a coma. In my case this occurred to such an extent that I had to engage a hospital warder, who came in the morning to revive me with about ten syringes of five-per-cent. solution, so that I was able to drive, not walk, fearing some one might garrot me.

Other dreadful hallucinations I had in thousands, all of a persecuting character, and frightening the life out of me so long as the effects of the drug lasted. You see small animals running about your body, and feel their bites. Every object seems to become alive to stare at you from all corners—look revolvers, knives, etc., and threaten you. Yet, as soon as the effect of the injection is over, you laugh at it, and produce willingly by a new injection the same terrors. About that time I bought three St. Bernard dogs, thinking they would protect me; but one night I found out they were talking about me—how they could get rid of me—so I stood up and shot one of them with a revolver,

which I always used to carry. I think this was the most dreadful night of my life—I standing on the table, with an Indian dagger and a syringe on the ground; one three-foot-high dog going to die, and two rather dangerous dogs roaring and groaning aloud, reproachfully looking at me, who always fancied, "Now comes the moment when they will tear you in pieces." I stood the night on the table, till the arrival of my wardsman, who hardly risked to enter the room.

The strangest thing, however, in the cocaine habit is that there seem to be two souls in the cocainist—one infested by the cocaine, suffering, and tortured by its effects; the other normal, laughing at his fears, and saying: "What nonsense! it is only an hallucination produced by an injection."

Not frightened enough by these experiences, and escaping from the troubles produced by his conduct, on he goes, taking more and more; and then enters a new kind of illusion, which finishes him up for the mad-house. I mean the revolting, dirty, sensuous illusions. The remembrance of it is for me so awful that I only tell you that one day every person I saw, near or far, appeared to be naked and in the most lascivious positions, alone or with others. I remember on entering the surgical theatre to have seen everybody—operator, assistant, students—naked. In terror, I took to flight, ran to a medical friend at a lunatic asylum, and was placed under restraint. Well, this ended (January, 1890) my pure cocaine habit, which in a year's time eased my pockets of about \$8000.

It was early in 1891 that I first met him in Melbourne. He was then a morphine-maniac, as well as cocainist. His appearance was characteristic. He was pallid and yellow, with hands trembling, cold, and sweaty, eyes sunken and glistening, pupils dilated, breathing short and hurried—restless, irresolute, and careless of his personal appearance. He appeared the embodiment of one who had just emerged from some terrifying experience. He soon became known to every chemist in the city, and from one and all bought syringes, cocaine and morphine whenever money or credit permitted. Frequently his needle would be fastened to his syringe by sealing wax, shellac, etc., and when he had no needle at all he would cut an opening with his knife, and insert the end of the syringe direct. Almost the whole of his body except the face was marked with needle scars. A common practice was to mix four grains of morphine with two of cocaine—"sixpennorth"—in a two-drachm bottle, and inject by syringefuls until all was exhausted. The change from the shivering wretch before injection to the self-confident neurasthenic after injection struck all beholders. His experiences embraced the whole gamut of wretchedness and shame, and included both hospital and jail.

As regards abstinence, he agrees with Erlennmeyer, that the symptoms are neither manifold nor severe. He said:

The tales about neuralgia, etc., are all lies, and, after two days' abstinence, the craving is relatively

small—you feel, in fact, nothing, but the thousand possibilities of suggestion form the real danger. Then comes the maniac desire; it fascinates your whole body. Suddenly your chest seems to be screwed together, you cannot breathe, your eyes protrude, and, if you have no cocaine, you either commit suicide in some way without intending it or murder one of your warders.

He summarizes the physiological effects of the drug as follows:

The cocainist early loses all appetite for solid food, but likes sweets, lollies, and cakes. Diarrhœa is soon produced, and immediate evacuation often follows big injections. Upon the muscular system the drug, as is generally recognized, acts as a most powerful stimulant for either single or continued effort. [Not only could he make long marches without becoming tired, but on one occasion, after injection, he says he lifted a cab with one hand on the axle.] It increases also the number of the respiratory and of the cardiac contractions (with vascular dilatation), as well as the quantity of urine (with large or repeated small doses, incontinence follows), and, enormously, the amount of sweat. Hence the great loss of weight. It stimulates also sexual appetite, though, later on, power is lost whilst desire remains. After each injection the pupil dilates, but remains dilated only because injections are continued. [When taking very large doses, he remarked that his iris seemed to separate into broad radii, with free spaces between.] As regards the brain, mental processes seem quickened, but a kind of hypnosis intervenes, so that the brain works without, and even against, the will. Immediately after the injection the cocainist becomes excited, and remains restless whilst under the influence. He likes manual work, however trifling, but has neither will nor ability for mental work, because he is bound to inject every five or ten minutes, or, in fact, because he never ceases to inject. The hallucinations and illusions already mentioned make their appearance early. One syringe self-injected is, in my opinion, absolutely sure to produce the fascinating desire for a second. The individual is almost certainly then a cocainist, and will procure the drug for self-administration, even when apparently it is impossible to do so. All watching is useless. He has thousands of excuses to get a moment to himself, generally in the neighborhood of some chemist. Unscrupulous—even though still aware to some extent of his ties—he will get it, dishonestly if necessary; and, even when not craving for it at the moment, he will get it, because his only idea is to have it with him. The sense of right and wrong is not abolished, but he does not care much about trifles. Thus he sinks lower and lower, disregards his personal appearance, and, because they will always show, or sham to show, a certain respect to his higher education, he seeks the association of lower people. He thus becomes a scoundrel or criminal, and does not mind to do so so long as he gets his cocaine. It is extremely seldom that he makes a trial to free himself of the habit, mainly because he does not see any reason to do so. Suicide he never contemplates so long as he can get his beloved drug.

For purposes of contrast it may be well to add his experience of the effects of morphine:

A man may be for years a confirmed morphinist without being a morphine-maniac, and the results are very different in the two classes of cases. I

have met hundreds of men, distinguished by intellectual power and refined sense, who were confirmed morphinists [and certainly, if his list is reliable, the names fully bear out his statement]. Such hate every low, unæsthetic object, and often indulge in princely habits which may cause their ruin. Morally they never descend to a low level, except, perhaps, during abstinence. By way of illustration I may quote the case of a morphinist who, during abstinence, stole an ounce of morphine, but who, as soon as he had injected himself, lent the money anonymously to the chemist from whom he had stolen it. Mentally there is undoubtedly a stimulating effect on the brain so long as the influence of the drug lasts. The brain seems to work quicker, conceive quicker, and, before all, the morphinist likes to do mental, though he detests manual, work. In some eight hours after injection the sublime quietness of mind is replaced by restlessness. The *habitué* generally becomes pale, and loses both flesh and muscle. Many, to obtain a little color, add a certain amount of atropine to the morphine. The desire for fluids seems diminished, and satisfied with choice drinks, if these can be had. To this, perhaps, may be ascribed the small quantity of urine generally passed. Morphinists can take regular meals, preferring well flavored and sour articles, such as curry, pickles, etc. The sexual powers are progressively diminished, and women despised, except the highly educated and brilliant. A sense for the eternal feminine remains, but no power, no desire.

The morphine-maniac is quite a different person. One syringe self-injected for any pain is sure to have, as a necessary consequence, a second as soon as the pains recur, even though distressing sequelæ have intervened. Even more dangerous in the establishment of the habit is the use of the syringe or insomnia. Soon he injects for the sake of injecting, until he gradually falls into a state of imagined abstinence. His moral balance disappears early, and for him a word of honor does not exist. Feeling that he is sinking to a lower level, he may make enormous struggles, but in vain. He cannot—he despairs, and gives up every hope. Highly increased doses momentarily restore his moral sense, but when the eight hours are over he is worse. Even when not abstaining, he may commit suicide, because he can no longer face his moral degradation. His despondency, his imagined abstinence, and the frequent injecting soon make regular brain work impossible, except, perhaps, in the morning. Even if able, however, he no longer cares for it, seeing the uselessness of his exertions. So long as he is under the influence he never has hallucinations, and seldom any illusions. Like the morphinist, he becomes pale and wasted, and shows the influence of the drug upon skin, bowels, respiration, eye, etc. He neglects his eating, however, and constipation frequently lasts for weeks, relieved immediately by a large dose of cocaine.

Regarding diagnosis and prognosis the same authority says:

The diagnosis of a morphinist is sometimes exceedingly difficult, because he tries everything to hide his habit. The contraction of the pupils, the marks of the syringe (if hypodermatically administered), and the "going away" from other people at certain hours, are in my opinion the only objective symptoms. The morphine-maniac is easily found out by the foregoing symptoms, by his dislike for females, and by his sudden nervousness and paleness, which disappear immediately as soon as he

has been, as he calls it, "a few moments in the fresh air." The cocaineist is distinguishable by his change of associations, his neglected appearance (of which he seems completely unaware), his dilated pupil, restlessness, hallucinations, illusions, and expression of anguish.

The prognosis is exceedingly unfavorable. It depends in the first degree upon a perfect change of surroundings. The slightest article which could make a cocaineist remember some moment of his sufferings is also able to recall the fascination. Even if free for a whole year, he cannot be trusted unless it be in new surroundings. And "kind friends" are only too willing to remind him of things which he has done and of which he is now ashamed. So that, sooner or later, he will take it again for "spite" or "fascination," or some other reason not to be explained by an uncocainized brain. For women the prognosis is—*pessima*.

With these words he concludes his account, which, though perhaps inaccurate in certain minor details, seems to me of special value in that it proceeds from a skilled observer, who himself has been behind the scenes and watched the phantasmagoria from the subjective as well as the objective side. It throws also an interpreting light even on the classical descriptions of Erlenmeyer, a summary of which may be found in Hack Tuke's Dictionary of Psychological Medicine, 1892, vol. i, pages 236-237. Perhaps, also, the insight thus afforded into the inner workings of an illusionized brain may lead some who have hitherto acted as hard, and even pitiless, critics, to recognize something more than "the party's criminal will" in the resultant phenomena. And may all echo the hope that this particular victim at least may find assistance and not hindrance on the dark and troublous road which he is now treading toward a better adjustment of his vital interrelations.—DOCTOR SPRINGTHORPE, in *Australasian Medical Gazette*.

NEUROSES AFTER OÖPHORECTOMY.—The most prominent symptoms of the surgical menopause are the intense nervous phenomena, which take on almost any form in different individuals. These, compared with those associated with the natural menopause, are as the cyclone to the storm. Flashes of heat are most intense; chilly sensations, tinglings and numbness are experienced. A frequent symptom is the burning, parched feeling internally, of which many of these women complain. They express themselves as "burning up inside." Palpitations and throbbing of the internal blood-vessels, muscular quiverings, restlessness, insomnia, and discomforts of all kinds occur. Frequent digestive disorders, such as abdominal distress and distention, accompanied frequently with con-

stipation, bladder irritability, headaches, vertigo, and dyspnœa, are present. Indeed, these symptoms might be greatly multiplied, for there seems to be no condition that can be produced by disturbance of the vasomotor system that is not present in some of these women. Unhappiness and worry are significant features in many cases, the mind conceiving everything deplorable. One of the most common manifestations is the idea that the personality is no longer feminine, the patient abhorring the thought of being classed in the neuter gender. The morbid brooding over being unsexed is no doubt a potent factor in the production of melancholia, suicidal impulse, and mania.—BLOOM, in *University Medical Magazine*.

A NAIL IN THE BRAIN.—Recently, at an autopsy on a man thirty-two years old, in the deadhouse of the Metropolitan Hospital, New York, when the skull-cap was lifted a nail was found which had passed through the skull and penetrated for three-quarters of an inch into that portion of the brain which is supposed to be the seat of thought. The head of the nail was imbedded in the skull, and covered by the scalp with its full growth of hair, showing that it had passed through the soft portions in babyhood. Inquiry into the previous history of the man showed that he was a laborer, had lived all his life in New York, had never suffered from any special disease until the attack of pneumonia from which he died; that he was of usual intelligence, and had never complained of headache; and yet during all these years he had carried this nail penetrating into the brain, the rust, when removed, staining the surrounding brain cells and scaling, when touched with a knife, from the nail itself. It was one of the strange revelations which the physician meets in the wards and the deadhouse of a great hospital, showing how often truth is stranger than fiction.—*New York Medical Times*.

MISSED LABOR.—The patient's pelvis was contracted by prominence of the sacrum. Three labors had been normal, and only lasted some two hours each; a fourth had been more lingering, and a very big child was delivered at term. Labor pains, very distinct, set in at term in the fifth pregnancy. For three hours the uterine contractions were strong and regular; then the intervals grew longer and the pains weaker till they ceased. When 302 days had elapsed after the last period, I found the patient inconvenienced

by the great size of the abdomen, so I turned and delivered a very well developed fœtus which was alive at the beginning of the delivery. The prominent sacrum gave great trouble; the perineum was badly torn, owing to the great size of the fœtal head; ossification of the cranial bones had advanced very far, and made the parts incompressible. The fœtus weighed twelve pounds eight ounces; the placenta and membranes two pounds. The perineum and the rent—nearly an inch long—in the rectum were sewn up at once and the mother made a good recovery. No uterine disease or rectal trouble ensued.—STAHL, in *Der Frauenarzt*.

EARLY DIAGNOSIS OF DIABETES.—Noorder claims to have discovered a new means of diagnosing diabetes in its very earliest stages or even a hereditary tendency thereto. He gives the patient 100 grains of grape-sugar which in the normal subject has no effect but in the incipient diabetic produces glycosuria. If this method proves correct it will be most useful in gaining for the diabetic the earliest possible treatment.—*Medical Record*.

SEMINAL STAINS.—The piece of cloth should be cut in small strips, after folding so that the suspicious stains touch, and then placed for several hours in a one-per-cent. solution of common salt or a one-half-per-cent. solution of alcohol. A strip of the cloth is then pressed out between slide and cover glass, and stained with a weak fuchsin solution. The spermatozoa are then readily recognized.—*Medizinische Novitäten*.

ANGINA PECTORIS.—From a study of forty-three cases I have reached the conclusion that this affection is a sympathetic neurosis, bearing much the same relation to the sympathetic nervous system as epilepsy does to the brain. Heart lesions and coronary disease are often absent, and when present are, probably, merely coincidental.—Sir BENJ. WARD RICHARDSON, in *The Asclepiad*.

CHOREA.—All cases should be carefully examined for rheumatic symptoms, endocarditis, pericarditis, etc. There appears to be an intimate relation between these two diseases, at least as regards ætiology, and certainly the symptoms in each are often present in the other and too often overlooked in the predominance of other manifestations.—TYSON.

The Medical Age.

VOL. XIV.

DETROIT, JULY 10th, 1896.

No. 13.

Original Articles.

SYSTEMIC TREATMENT OF EYES: WITH DESCRIPTION OF A NEW MODE OF EXAMINATION.*

BY EPHRAIM CUTTER, M.D., LL.D.

The local treatment of eyes is carried to perfection. Its acumen, literature and refinement are wonderful; for example, see the best of papers for the Section of Ophthalmology of the American Medical Association for the present year. But it is important to treat eyes through the system for the following reasons:

According to the dictum of one of the most profound experimenters in medicine, all non-intrinsic diseases of the eye have their foundation in malnutrition. Another, a distinguished oculist, told the writer that nearly all eye diseases could be ranged under the general head of dyspepsia, thus making eye diseases masquerade for diseases caused by food:

In 1889, while a guest of Sir Benjamin Ward Richardson, of London, I asked him: Is it true that you and Doctor S. Weir Mitchell of Philadelphia produced in twenty minutes cataracts of both eyes of a frog or guinea-pig by a hypodermatic injection of a teaspoonful of a saturated solution of common sugar in water?" "Quicker than that," was the reply; "and there were other things that produced them, also:"

The most common diseases of the eye are due to a transformation or degeneration, or metabolism of a fatty kind—*i. e.*, cataract, amaurosis, glaucoma, arcus senilis, apoplexy of retina, dropsy of retina.

Cataract.—In 1876 a Boston oculist was asked: "What is the trouble with cataract-

ous lenses?" Reply: "Degeneration." "But what kind?" "Do not know." So a dozen cataractous lenses were procured at the Boston Eye and Ear Infirmary—white, black, waxy—and studied under the microscope. The granules and globules showed fat. I took some photographs, which are extant. These photos being shown later, it was said that the Germans regarded the degeneration as fatty.

Among the great blessings conferred during this century by the microscope is the knowledge that fatty degeneration is due to retarded or languid circulation. The very complicated anatomy of the eye renders its circulation more difficult than that of other organs, if we except the kidneys possibly, and hence the eye circulations are easier to impede than those of other organs. It has happened that oculists detected fatty kidneys before the medical attendant detected them, when really the medical attendant ought to discover the fatty ill first in the blood and urine because it is more easy to treat in its pre-stages than when gone so far as to develop manifestly in the eyes.

Fatty degeneration is the replacement of healthy tissues by oil, atheromatous matter, cholesterin, lardacein, stearin, palmitin, etc. Fat in its place is a normal tissue. Obesity is not fatty degeneration necessarily. Fatty degeneration is a systemic disease with local manifestations. It is unwise to expect the restoration of fattily degenerated eyes when the whole system is pervaded with the fatty degeneration. Of course it develops in the weakest parts of the body, because of least vital resistance.

Fatty degeneration is discovered by the microscope's clinical morphology as follows: Free oil in blood: Amyloid in blood and urine: Fat in white blood-corpuscles: Fatty epithelia, casts (hyaline, waxy, epithelial or otherwise) in urine—in early cases seven

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specimens taken on seven successive days before breakfast are needed: Amyloid: Oil. Oil in the blood should be solid like the body of a candle, and not found free. By chemical examination we find albumen in urine. *In the pre-stages these signs are much less in amount and frequency than in the fully formed stages.*

I have known fatty degeneration of the kidneys to be relieved by systemic means—two cases will suffice.

Case 1.—Mr. — was brought to me by Doctor J. D. Mansfield, of Wakefield, Mass., in 1882, as a case of fatty degeneration of the kidneys. He had been rejected for life insurance. Doctor Mansfield himself had made out the diagnosis; besides, the case showed free oil in the blood and fat in the white corpuscles. In the urine were albumen, fatty epithelia, and casts. This case was treated by me for two years. For the first six months he ate nothing but chopped beef defibrinated and broiled, great care being taken to obtain good beef, and that when prepared and broiled it should be palatable, with drinks of hot water before meals; clear coffee or tea at meals. After six months, rice or toasted bread was brought in with care, his dietary depending upon the condition of his specimens—not his feelings nor the fear of uræmia from beef-eating (bugaboo of the profession then as well as now), nor the criticisms of others interested but without responsibility in the case.

Since the close of his treatment in 1884 he has had the hue of ruddy health and has kept at his business. Lately the company that rejected him has insured his life.

Case 2.—Man of 60 years of age, in Tokio, Japan, 1881; an old patient of mine. Diagnosis of Bright's disease of the kidneys had been made by a professor at the head of the medical department of the University of Tokio and by an American physician (Harvard graduate) then living in Japan. I laid out plans for his treatment; he lived largely on sirloin and porterhouse steaks and rice, greatly to the consternation of the natives, who assured him that such a diet would kill him. He is now (June, 1896) living and well, and free from the signs of Bright's disease save when he eats wrongfully or overdoes in work, worry, or pleasure.

These cases were treated on the plan of stopping causes—*i.e.*, the fat and carbohydrate food,—sustaining Nature fully on other foods freed from the objectionable features

named, oiling the machine with medicine and then letting Nature do the work for the physician just as she does in agriculture for the farmer.

On general principles of removing systemic causes, the writer has inferred the affections of the eye whose essence lies in fatty degeneration should be treated in like manner with the cases just mentioned. This has proved favorable in some instances that he has met with.

Some years ago a clergyman, 72 years old, applied to me, saying the oculists had told him he must not preach any more, as he had *amaurosis* and was in danger of blindness. I suggested a plan of diet based on the principles above outlined. The clergyman followed it out until his death some six years later from peritonitis (it was reported). Shortly before he died I saw him among the horse cars and teams crowded in Park Square, Boston. He said he had preached to the "spirits in prison" at Concord Reformatory the Sabbath previous, and that his eyesight was no worse.

In another case a man of 65 made a like complaint and was treated in like manner. Six years afterwards I met him and he said his eyes were all right.

I have two other cases under treatment at the present time, in which there was difficulty in obtaining glasses, the pupils being of ground-glass appearance. Both cases presented the microscopical signs of fatty degeneration in blood and urine, which have nearly disappeared. One case now uses no glasses; the other is much improved and the ground-glass appearance of the pupil has faded very considerably—towards the normal black.

About January 1st, 1896, a wife was delivered of a child, followed by blindness in the left eye. Doctor W. F. Holcombe diagnosed dropsy of the retina and apoplexy of the same; he treated her systemically. When he kindly showed me the eyes, she had regained her sight; the ophthalmoscope showed the dropsy gone and the effusion a good deal absorbed.

It seems reasonable to thus attack ocular diseases both centrally and peripherally. The best way is to work on the lines of State Medicine—*i.e.*, by prevention. If people

would eat two-thirds animal food to one-third food from the vegetable kingdom, by bulk, I think there would be very much less eye diseases, other things being equal. When society recognizes these principles in food ethics, I am quite sure that the local treatment of eyes will be much more successful in the hands of oculists learned and distinguished and otherwise.

Mode of Examination of Eyes.—Place the patient in a good light, natural or artificial. Then with the objective lens of the eyepiece of a microscope examine the pupil, the eye being turned so that its sheen does not shine in your own eye. The healthy pupil is dark. The glaucomatous pupil is a greenish-white, like greenish ground glass. In one of my cases, mentioned above, a rude whitish cone like a bunch of grapes projected across the inside of the eye from right to left. Under systemic treatment this disappeared and the general diffused color of the inside of the eye grew lighter and made it possible to see the concavity of the retina through the pupil.

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HEREDITY AS A SOCIAL BURDEN.

BY A. W. WILMARTH, M.D.

It may appear like a waste of time to present the proofs of the existence of heredity as a large factor in the production of those forms of nervous disease of which I propose to speak. My reason for doing so is twofold: The existence of heredity, as such a factor, has been occasionally denied by men in such position in the medical world that their opinions must carry some weight, even though they are opposed by the large majority of thinking men who have given this subject their attention, and the existence of statistics which have been most carefully compiled and verified. Moreover, the large and rapidly increasing number of these defectives, and the rapidly growing burden of their maintenance, as well as their harmful effect on society at large, can only be realized in this way. The three forms of nervous disease which are most certain to make their victims more or less dependent are epilepsy, insanity, and imbecility. Either of these disorders interferes

seriously with the victim's power of self-support, or renders him dangerous to society. In dealing with heredity in this connection it is not reasonable to expect each of these conditions to reproduce itself exactly in kind. The law of heredity is, that each characteristic in the parents *tends* to reproduce itself in the offspring. Characteristics derived from one parent may be masked or overcome by the influence of the other. They may be permanently obliterated, or reappear a generation further on, under favoring circumstances. The three conditions I have enumerated are all merely evidence of functional disturbance of the higher nervous centres, due to trophic or organic change. The special form and order of appearance are dependent largely or entirely on the portion of the brain implicated, and the age of the subject. Brain trouble occurring early in life occasions epilepsy or imbecility, or both; when it occurs after the mental growth is more or less matured, we look for insanity. Epilepsy is less liable to occur in later years because the inhibitory control of the motor centres in the adult is more powerful than in youth.

Let us first look at epilepsy as an inherited neurosis. The statistics in this are more accurate and reliable than in the other two conditions, for the reason that its symptoms are so unmistakable that there is less possibility of the friends deceiving themselves, or others, in regard to its existence. Even in uncomplicated epilepsy, if the spasms are at all frequent, the sufferer's power of self-support is lessened if not destroyed, and the burden of his maintenance comes on his family or on the general public. Echeverria, after ten years' careful research in tracing the histories of the offspring of epileptics, has published the most valuable statistics on this subject that I have yet found. Excluding all cases which could not be fully verified, he found that sixty-two male and seventy-four female epileptics begot 533 children, whose life histories were as follows: Twenty-two were still-born; one hundred and ninety-five died in infancy, from convulsions; seventy-eight lived as epileptics; eighteen lived as idiots; thirty-nine lived as paralytics; forty-five lived as hysterical; six had chorea; eleven were insane; seven had strabismus; twenty-

seven died young from other causes than nervous disease; one hundred and five were healthy. Could a more convincing story be told?

There are two further quotations I will make from his careful record:

The marriage of epileptic women to non-epileptics was more apt to result in neurotic offspring than when these conditions were reversed.

The result of the marriage of two epileptics was as follows: Five children were born to them, of which two died in infancy from convulsions, one from hydrocephalus, one lived an epileptic, and one was said to have been bright. Of Eccheverria's one hundred and thirty-six original cases, eighty-seven had parents with either insanity or epilepsy, while in forty-six cases epilepsy had existed through three generations; one woman had epilepsy from puberty until marriage, thus demonstrating that marriage may cure epilepsy, but of four children she bore, two were epileptic and one paralytic.

Doctor Knight, of Lakeville, Connecticut, in an address before the American Conference of Charities and Corrections, quotes a case where an epileptic mother bore fifteen children: eight died in infancy; two were fairly teachable imbeciles; two were epileptics; three had sufficient intelligence to secure husbands and thus risk perpetuating their kind. Doctor Landon C. Gray tells of an epileptic female who had nine children, seven of whom died of infantile convulsions.

I studied the carefully compiled records of 500 epileptic children at the School for Feeble-minded at Elwyn, Pennsylvania, while engaged there as assistant superintendent. Of these, 149 were incomplete and are not included. Of the 351 remaining, there was found: Neurotic disease in 108 families on the father's side, in 106 on the mother's side, and in twenty-two instances on both sides, or in 236 families in all. In eighteen other cases some neurosis existed in brothers or sisters, but was not acknowledged in the ancestry. Insanity, imbecility, and epilepsy, with fifty-six, fifty-eight, and seventy-one cases, respectively, figure most largely in the percentage of this array of epileptic inheritance; chorea, paralysis, etc., forming the remainder.

The heredity of insanity is not so evident nor is it so certainly transmitted to offspring for the reason that very many cases of insanity are due to excesses committed in early adult life. If transmitted, it is more liable to manifest its results in early life, when imbecility or idiocy will develop, or epilepsy, or possibly we may find that incurable perversion of the moral nature, aptly termed "moral imbecility," which furnishes so much discussion as to whether it should be regarded and punished as depravity, or treated as a congenital absence of the faculty of moral control. A smaller number await mature years before coming into their inheritance of misfortune and occasionally reproduce the parent malady with singular exactness. Savage, the eminent English authority, states the matter very concisely as follows: "Heredity produces some insanity, but is more likely to produce either mental defect or special and unusual forms of muscular, sensory, mental, or moral disorder." Nearly every systematic observer admits insanity as an ætiological factor in inherited nervous weakness; and tracing insanity backward, the most conservative writers place the ratio of inherited insanity at twenty to twenty-five per cent. Others place these figures higher, and Kesteven says "the most influential of causative factors is heredity, and it is the one most commonly suppressed by the friends." The truth of the last part of his statement no one will dispute.

I wish to particularly emphasize the influence of heredity in idiocy and imbecility, for the reasons that they are the legitimate offspring of nearly every form of neurotic taint in the parent. Their extent and baneful influence are not realized by any one who has not given this subject very careful study. The census report for 1890, adding the legitimate rate of increase, would give us at present nearly, or quite, 100,000 feeble-minded in this country, or about the same number as of the insane. But the number is no doubt much larger, for it is both more easy and more usual to deny than to admit idiocy in the family; and while mental weakness which results from accidental brain-injury or from infantile acute disease carries no more discredit than a broken limb or pleuritic adhesion, the mother's love for her child and

sense of family shame induce concealment. In fact, the number of instances where defect in the child does echo parental weakness is enormous, as we will shortly see. The extent to which the census-takers may be misled may be inferred from the report of the late Doctor Kerlin, of Elwyn, Pennsylvania. Of the 295 applications to the School for Feeble-minded at that place, for admission in 1880, 178 (or sixty per cent.) could not be found in the census list for that year. How far this may apply in other States, we can only surmise, but mothers are nowhere too ready to admit defect in their offspring.

There are two conditions in the parents which tend strongly to produce idiocy or imbecility in the children: ancestral neurosis, and inebriety. These two conditions are associated with extreme frequency, as one would naturally expect. Doctor Beach, of England, states that drunkenness is found in thirty-eight to forty per cent. of the parents of idiots. The fourth Conference for the Care of Idiots in Germany agreed that inebriety was the principal cause of idiocy. In this country, the association of medical men interested in the care of the feeble-minded, while not seconding such an extreme statement, have unanimously agreed that a large per cent. of imbecility is due to the transmitted effects of alcohol, and counsel, as did the German Conference, a more stringent legal restriction of its use.

Until society at large recognizes the absurdity of restraining the man who maliciously breaks a window or robs his neighbor of a lime, and allowing perfect personal freedom to the man who robs his children of their birthright of health and strength, it is useless to protest against the drunkard. In very many cases he is closely allied to or belongs with the next class, the neurotic. A cloud of witnesses testify to the transmission of neurotic taint in one or more of its many forms, to produce imbecile children. The largest and most complete estimates on this subject yet published are as follows: In America, Doctor Barr with 1044 cases; in England, Doctor Shuttleworth with 1200 cases, Doctor Beach with 1180.

The work of these gentlemen is too well known to make any doubt of the great care

in the preparation of their results, or the accuracy of their statements, possible.

	Barr.	Beach.	Shuttleworth.
Total cases	1044	1180	1200
Percentage of insanity and imbecility	38.	22.71	20.08
Percentage of other neuroses	21.55	36.85	

If we accept the averages of Barr and Beach, which are strikingly alike, we have nearly sixty per cent. of the families with more than one defective member. These figures fairly illustrate the results of other observers. We cannot go much into detailed cases, but I would like to quote Doctor Ireland in a case illustrating the persistence of the tendency of heredity. He mentions an instance where four illegitimate feeble-minded children were born to one mother by four different fathers. Doctor Barr, in following up this point, has well authenticated histories of two women, one of whom bore seven illegitimate imbecile children, each time by a different father; another had seven imbecile offspring, of whom only three could claim the same father. A case under my own care bears on the same point. A little idiot child had the well formed but lax and entirely paralyzed muscles which usually accompany that form of defective cerebral development known as microgyria. His mother visited him, a robust, high-grade imbecile, with no apparent physical defect. She had married a second time, and bore the fruit in her arms—an idiot child afflicted almost exactly like the first child. A local physician assured me that the men were both healthy and of average intelligence, and that the second husband had come to that locality, a stranger, after the birth of the first child.

It is fortunate for society at large that this degenerative tendency does frequently tend to physical disease, sterility, and final extermination.

Such is the evidence that tendency to nervous instability or degeneration descends from generation to generation with the same certainty that all natural laws are fulfilled, and with the same occasional deviations from strongly influencing circumstances.

What is the number of these defectives,

and to what extent do they influence public welfare and public progress?

Doctor Knight, who has given the care of epileptics much study, estimated in 1892 that their number would reach 19,000 in this country. These unfortunates will almost invariably drift into imbecility or dementia, or some other form of insanity, and be cared for, if at all, under these heads. Some children, rarely adults, recover. They are ever liable to injury in almost any form of occupation. They are perfectly free to marry if they can find a mate, and very few who set out earnestly on that errand fail to succeed; and they leave as a legacy to the world more epileptics, or worse. When transient mania complicates a convulsion, no class of the insane are more dangerous.

The number of the insane in this country will hardly number less than 100,000. It would be difficult to estimate the exact cost of their maintenance, but we will look at their approximate cost in the two largest States, which in 1890 contained about one-sixth of the entire population of the country; this will furnish some guidance for the estimation of the total expense. In Pennsylvania in 1894 there were 8616 insane in institutions of all kinds, of which number 6342 were in the six State hospitals and the large private asylums of the Pennsylvania Hospital and Frankford. These 6342 people represented an expenditure of nearly one and a half millions of dollars, while the care of less than one-eighth of the acknowledged feeble-minded of the State added about \$150,000 to this immense total. New York State spent in 1893, for the care of her hospital insane and a small proportion of her feeble-minded, over two and a half millions. Carry out this relative expense through the States of the Union, and the amount is startling.

While the insane are very generally cared for in asylums—for public safety demands this—where are the feeble-minded? Not one-tenth of them are in institutions. In European countries they considerably outnumber the insane, and probably would be found to do so here if properly enumerated. Part of them are in alms-houses, where proper care is, in many cases, doubtful. Many are in their homes, where they monopolize the mother's time and strength, or wander on

the streets, where they are teased by children, abused by the vicious, and live a strange life among their own people, with whom they have so little in common. From the higher grades of imbecility are recruited the ranks of petty criminals, prostitutes, and tramps, who marry early and often, and who reproduce with the frequency of animals. Medical officers in reformatory institutions are becoming impressed with the idea that the majority of the young criminals who are guilty of repeated offenses are permanently lacking in those highest mental traits on which the development of the moral nature depends.

The growth of the burden on the industrious of supporting the helpless and the worthless may be better realized when we learn that the State Board of Charities in New York expended nearly eight and a half millions of dollars in 1880, and nearly sixteen and a half millions in 1890, although the population of the State in that decade increased less than twenty per cent. Do you realize that the taxpayer in a life of ordinary duration may help support three generations of these defectives, increasing in geometrical ratio?

The remarkable increase in some of the degenerate families which dominate in animal strength, with mental weakness, is best illustrated by two instances. One is founded on the report of Miss Schuyler, President of the New York Charity Aid Society, on "Margaret, the mother of criminals," and progenitor of a family of paupers, beggars, prostitutes, and criminals, which finally became a race of 700. The family vigor was largely preserved by intermarriage with fresh, vigorous families of ruffians, and some of the women bore at least twenty children, among which were insane, epileptics, and imbeciles. I would quote further the family alluded to by Doctor Barr, in his exhaustive paper on the influence of heredity in the production of idiocy, known as "The Tribe of Ishmael," where the descendants of one unclean man, traced through many years, multiplied by consanguineous marriages into 250 families, numbering some 5000 individuals, whose continuous criminal record "has poured over the Northwest a flood of imbecility and crime." There are similar cases on record, less striking perhaps, but leading to the same con-

clusions. Professor White, late of Cornell University, places the number of homicides in our country last year at over 10,000. How many of these were due to the insane, I will not pretend to say, but nearly every day we can find in our daily papers murders, very generally followed by suicide, where the victims will number one, two, or even five and six, and committed under conditions hardly consistent with sanity. Add these innocent lives to the aggregate cost. So frequent have such affairs become that only when some one high in public life becomes the victim do they excite more than temporary interest or arouse us to a danger which may be very near us.

The remedy for this state of affairs is a subject which demands earnest thought and radical measures for relief. The evil is so grafted on the every-day life of society that to think of its immediate or entire suppression would be folly, but it is time to make a beginning. We cannot expect much relief from purely medical means. No more hopeless disease exists, among the more common maladies, than epilepsy in the adult. The relatively small number of "recoveries" in hospitals for the insane would be largely diminished if we subtracted those committed to recover from alcoholism, and cases of recurrent insanity who recover only to be re-committed. I know of one individual who enriched the records of a hospital with nine "recoveries" inside of a period of as many years. The superintendent of an institution for the feeble-minded no longer looks for restoration to normal brain power in any large number, and even in such cases as do leave there is a fear that their places may be soon claimed by their children. He derives his principal satisfaction from the fact that in the asylum his institution affords, the unfortunate, the low-grade imbecile and the idiot are safer and more comfortable, and the high-grade is at least safer, than they could be elsewhere; that he has relieved healthy children of associates who could do them no possible good, the family of a care and expense often so burdensome as to keep them poor, the mother of a yearly increasing care which was robbing the other children of their just share of her time and wearing her down prematurely; that by isolating the girls of

child-bearing age he is diminishing the ranks of criminals, drunkards, vagabonds, and prostitutes, and moreover by placing perhaps five of his charges under the care of one person, so many workers are relieved and can turn their labor to the public good. In referring to the State care of defective girls during the childbearing period, no explanation of its necessity is needed, or why it is more urgently needed than in the other sex. No normal woman is in the same danger from an imbecile man as the girl with normal passion, and little power of self-restraint, is from the vicious man.

It seems strange that our marriage laws should be so lax. The marriage of the unfit goes on unhindered. The epileptic may marry his kind; the drunkard, from a body thoroughly diseased, may produce any number of defective children to become public wards, to be supported by the more self-respecting and industrious. There is no legal restriction against the man whose grandfather and father were insane, and who has even been insane himself, marrying some woman similarly gifted and charging the result to the public. The lunacy law of Pennsylvania expressly provides that persons, while still insane, may go home for stated periods to resume all their family relations. It is time for a radical change in this condition of affairs. The excellent example of New York should be largely followed in other States, and large provision made for mentally and morally enfeebled girls. More stringent marriage laws should be enacted and enforced. The need of some such law was most strongly impressed upon my mind during my service at the Elwyn School for the Feeble-minded, where the mothers of our children, who so often might not be classed as imbecile perhaps, but were nevertheless very nearly so, would so frequently bear a new name. Possibly the fathers were equally ready to remarry, but this was not so evident.

In one winter, out of five children who died consecutively, four of the mothers had remarried. A woman who had borne six microcephalic imbeciles, two of which were under our care, came to see them one day and announced that she was about to take a second husband. It is a pretty well estab-

lished fact that if one microcephalic is born in a family there is a strong probability that any succeeding children may be similarly marked. So long as such a state of affairs continues, we must expect a constant increase in the number of the defective class, the size of our institutions of charity, the growth of crime and misery, and the burden of taxation. The marriage of such people should be legally prohibited. It is silly to protest that such measures would increase sexual crime. Sin will exist as long as human weakness shall live, and is not to be controlled by permitting the constant increase of a class least able to exercise self-control. While women in every way fitted to become wives and mothers hesitate before the responsibilities such a position entails, these others should not be allowed to assume duties they can never adequately fulfill, at so great a public cost and for the mere gratification of animal instinct or the prospect of support. Such a law would not be unjust. The right of the public to control powers which militate against the public good is not to be denied, and such a law judicially applied would work no material hardship and interfere with no one's just rights.

On whom does the responsibility of righting this wrong fall more heavily than on ourselves? To no one else has been confided, for many years, the care of such unfortunates as they have fallen from the ranks of workers and become dependent. No one understands, as we understand, how surely the fruit follows the seed in these matters, and no one's word would have the same weight in moulding public opinion to force legislation to this end. The act of marrying two people, one of whom is known to be afflicted with either of the defects herein specified, or who has already borne more than one defective child, should as certainly subject the offender to punishment as would any other offense against the public peace and morals. The whole body of the intelligent public would join opinion with us in this matter. The voice of the clergy would be with us in recognizing the high duties of marriage, with the exception of a very few who by no means represent their body, but who utterly neglect the divine warning that the father's sin will

curse the life of the child, and cheerfully perpetuate the curse, for a compensation.

These two measures—of providing safe and comfortable homes for the weak, and preventing, in some measure, marriage among those who can only perpetuate and increase human poverty, suffering, and crime—fall far short of fully solving this great question. They have the advantage, however, of being practicable, and furnish, so far as I can see, the only radical means for immediately checking the constant increase of the evils described. We cannot abolish human sin and human weakness, but we can deprive them of the seal of the State and the Christian church.

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URETHRAL CARUNCLE.*

BY DOCTOR F. B. BRITTAIN.

By urethral caruncle is understood a small protuberance of the meatus urinarius, usually from the inferior portion, though it may occupy any portion of the circumference. It occurs almost exclusively in the female, and is always a troublesome as well as extremely painful affection. Different text-books describe it as: "A fleshy, deep-red protuberance, having the appearance of a raspberry or a diminutive cock's comb:" "A vascular tumor found about the meatus, producing an intensity of suffering" (Madden): "A caruncle or papillary angioma, occupying any portion of the meatus, but usually the inferior portion,—sessile or pedunculated, usually single, bright red or bluish color, rarely larger than a pea, granular surface, bleeding readily on handling, and extremely sensitive."

Skene remarks these little tumors occur frequently, though most authors seem to consider them rare—an opinion that, so far as my own observation goes, I am inclined to corroborate.

The symptoms are largely defined by the description of the malady; there is pain on urinating and during sexual intercourse, and the latter, owing to the excruciating suffering, is often impossible.

* Read before the Texas State Medical Association.

Warty condylomata may occupy the meatus, and though, like caruncle, they may be of a bright red hue, they are easily distinguished from the latter in that they are not painful to touch; neither do they bleed. Hæmorrhoidal veins about the urethra may be readily differentiated from caruncle by their bluish color and lack of extreme sensitiveness. Cysts and fibromata are recognized in that they are smooth, do not bleed, and are not painful to touch.

But there is one disease with which caruncle is liable to be confounded, viz., inflammation of the urethral glands. Skene remarks that he had one case of this kind which he treated for eight months before he found out its true character; on more critical examination one day, he accidentally discovered the glands. These glands are two in number, one on each side in the floor of the urethra, and are in the form of straight tubes running parallel with the long axis of the urethra; they are situated in the sub-mucous tissue and dip into the membranous portion; will admit a No. 1 French probe, and open into the urethra one-eighth to one-fourth inch from the meatus.

If one is dealing with a case of supposed caruncle which stubbornly withstands treatment, it is advisable to take a peep into the urethra, and if the urethral glands have been inflamed for months a little pus will probably be discovered at the mouths of the ducts, especially if a finger be introduced into the vagina and made to press upon the urethra from above downward. Such a demonstration will constitute clear evidence of inflammation of Skene's glands, instead of caruncle.

The treatment of inflammation of the glands is to slit them up and apply tincture of iodine or other substance to the slit-up portion. But the management of caruncle is altogether surgical, and the tumor should be removed with the scissors rather than with the knife, and its seat cauterized with fuming nitric acid. In all these cases, too, the patient is run down and needs building up with tonics, such as nux vomica, arsenic, and iron. Some patients of this class do not bear ferruginous preparations well, becoming feverish under their use, in which case it is advantageous to change to zinc sulphate. Also it is essential to keep the bowels open by means of an

aperient pill such as aloin, strychnine and belladonna, or colocynth compound with nux vomica and belladonna; and either or both these compounds act better for the addition of ipecac and powdered Castile soap. These are excellent aperient remedies in any case of constipation.

Arlington, Texas.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.*

Stated meeting, June 4th, 1896. The President, Joseph D. Bryant, M. D., in the chair.

[At the meeting of May 21st, Doctor C. G. Coakley read a paper on "Statistics of Diphtheria," and Doctor Joseph E. Winters one on "Clinical Observations on the Antitoxin Treatment of Diphtheria," and both gave reports of personal investigation of this treatment in the principal fever hospitals of Europe during the summer of 1895. Owing to the lateness of the hour, other papers on the subject and the discussion were postponed until the present meeting. For an abstract of Doctor Winters's paper, see department of "Medical Progress," page 413.—ED.]

Doctor H. Ernst presented a paper on "Experiences with the Antitoxin Treatment," and Doctor W. L. Stowell one entitled, "Diphtheria With and Without Antitoxin," both of which were discussed at some length.

Doctor William H. Thomson: The grounds for skepticism on the part of physicians in questions connected with therapeutics are natural enough when the complexity of the conditions inseparable from such problems is taken into account. This is particularly the case when the treatment of infectious diseases is in debate. Here an element of uncertainty meets us at the outset in the fact that most acute infectious diseases run a well defined course, tending to recovery in the majority of cases without treatment. Unless the percentage of recoveries without treatment can be approximately estimated and duly allowed for, no trustworthy comparison between different plans of treatment can be made. Another factor in the problem is

*Stenographically reported expressly for THE MEDICAL AGE.

diagnosis; still another, that all infectious diseases depend for their development upon an animal body which receives their germs. —In the majority of persons these germs do not develop at all, as was known before the days of vaccination. Their entrance in some persons is followed by little disturbance, in others by a most luxuriant growth from the beginning. Now, how are we to know beforehand which are to be mild cases and which severe? The mild ones will get well and the severe ones die in any case. These two classes, mild and severe, ought to be considered separately in order to pronounce correctly upon the effect of treatment. But how can this be done in practice? A third factor is that microbes themselves change in character, and this fact offers a plausible explanation of the difference in seasonal severity, etc. These factors find no counterpart in chemical action, where with the agents known the result can be predicted with exactitude. It is wholly illogical, therefore, to suppose that an alleged remedy against a disease is a specific in the chemical sense that a given amount of acid will act against a given amount of alkali. These elements of variability must be taken into consideration in all discussions of infectious diseases. They are ignored by the opponents of the antitoxin treatment of diphtheria, who argue as though antitoxin should, like a chemical substance, neutralize another chemical agent producing this disease. Still another element is that termed "polymicrobial infection," for it has not been claimed that antitoxin will counteract the influence, for instance, of the streptococcus. Again, arsenic cannot destroy tissue more hopelessly than nervous elements are sometimes damaged in diphtheria, and after the change has taken place it would be just as useless to try to neutralize the effects of the one by antitoxin as of the other by a chemical antidote. Thus to some the whole question may seem too involved to hope to settle it at all. The decision of therapeutic questions, including the use of antitoxin, must rest on comparative success, and on that alone; unless this postulate is granted, there can be no decision about the use of any remedy whatever. In the case of antitoxin, those on the negative side have often mentioned failures as sufficient to prove their contention; but I hold that failures of a remedy are not proof it is not a remedy. Quinine often fails to cure ague. Is it on that account no preventive of ague? In diphtheria the conditions are widespread disease, characterized by pretty uniform mortality and by conditions which influence that mortality in all civilized countries of

the world. Now the verdict regarding any remedy should depend on the finding of a jury whose members shall not only be competent, but also so numerous and of such difference in locality and nationality that all comparisons of local influences will be left out. The summoning of such a jury would have been impossible in former times, but the recent impressive case of tuberculin shows that it is possible now. In the matter of tuberculin the competency of the jury was shown by the fact that, notwithstanding the interest in tuberculosis—which was quite equal to that in diphtheria—and the reputation of the originator of the supposed remedy, which was most calculated to influence the jury favorably, yet negative judgment was rendered, practically, within four months. The antitoxin treatment of diphtheria has been before the same jury—with the disadvantage of the presumption against it on account of the failure of its predecessor—about a year and a half, with reports from private practice and from institutions in various parts of the world, and the general verdict of these reports is favorable.

[Doctor Thomson here read statistics from Austria, Germany, France, Asia, England, etc., summing up the reports from eighty-five hospitals, where 9893 cases were treated with serum, with a mortality of 18.3 per cent. Of these eighty-five hospitals, fifty-three compared their results with the pre-antitoxin period, when their mortality was 44.3 per cent. Under the antitoxin treatment the number of cases was 7277, with a mortality of twenty per cent. This seemed to him to justify the contention that, so far as hospital statistics go, antitoxin has caused a reduction in the mortality of diphtheria of fully fifty per cent. Continuing he added:]

While I have not alluded to the evidence from private practice, any one who has followed reports in the journals can hardly doubt which way the verdict is trending. Thus, out of thirty-three reports, Girard found 3760 cases of diphtheria treated with antitoxin, with a mortality of 7.8 per cent. The evidence in laryngeal diphtheria seems of a very positive nature. It appears to me useless to attribute these results to self-deception. It is much more probable that a great advance in the progress of medicine marks the close of the nineteenth century.

Doctor George L. Peabody: The fallacies which have struck me in Doctor Winters's argument against antitoxin have been rather fully

elaborated by Doctor Thomson. It certainly is not fair to assert a remedy is valueless because the reduction in mortality produced by it is not uniform in all parts of the world; yet that is the statement heard repeatedly in the argument before this Academy two weeks ago. If that were the case, no remedy of modern times would be allowed to stand before us at all. Brandt, in detailing the results of the bath treatment of typhoid fever, gave in one report 19,000 cases treated, with a mortality of about twenty per cent., and then went on to say that these statistics had been collected from all parts of the world, and that he did not consider they correctly represented the work which the method could do, for on quoting statistics of 8000 cases treated by persons who had faith in the remedy and applied it systematically it was found that the mortality was only about eight per cent. We were told, two weeks ago, that death followed promptly in a good many early cases in which antitoxin was used, and the inference was that the fatality was due to the remedy. I submit this is not a fair inference. All interested in therapeutics will admit that "I was sick; I took a medicine; I got well," does not justify the inference that the medicine brought about the cure, and it is certainly equally true that one is not justified in saying, "The patient was sick; I gave a remedy; he died,—therefore the remedy caused death." We are not given enough of the history of these cases to judge of the cause of death, for the reports were necessarily brief; but it is not unlikely they were cases of mixed infection. No one claims antitoxin is as efficacious in cases of mixed infection as in those where the Klebs-Loeffler bacillus alone is present. Again, if one gauges the value of antitoxin by the cures, but condemns it by the fatalities, where are we to bring up with reference to all possible therapeutics—not alone in medicine, but in surgery as well? Under such a rule, one would not be justified in recommending an operation for appendicitis, inasmuch as it is generally known such operation may be followed by death. It is quite possible that a child that develops diphtheria after receiving an immunizing dose of serum may have been infected previously. It has been stated here that none of the advocates of antitoxin will allow it to be used upon themselves. This does not apply to all, for I have myself received a large dose without any regret except that the syringe was very dull—the result was absolutely harmless, save for a slight amount of urticaria that developed.

Regarding the deaths attributed to the se-

rum, it must be admitted that in any given case it might be impure; it is possible for it to be infected before being administered; we have been told by those who have had very extensive experience with it, that it sometimes bears traces of impurity visible to the unaided eye, and certainly nobody need infect a patient with impure serum if he exercise a reasonable amount of care. That there are individual susceptibilities to the serum, must be admitted: some are more susceptible to it than others, and some may be injured by a given specimen that will not harm others. I have given from the same bottle the same immunizing dose to each of three individuals at the same time and with the same syringe, and one suffered very distressing urticaria and joint pains while the other two developed no symptoms whatever. That a toxic substance may exist in the serum is true, but this is rather an argument against the toxic substance than against the serum, for none who advocate the use of the latter advocate its use combined with toxic materials. Now I am not biased in favor of antitoxin, but am willing to hear the other side, for the question is still an open one. Neither am I easily led to adopt new remedies—for instance, I have never administered, nor caused to be administered, a single dose of tuberculin, because it was an agent I preferred to first see thoroughly tested. I have given antitoxin repeatedly, and observed patients improve under it rapidly. One who has seen even a single case of well marked diphtheria treated with antitoxin, and witnessed abatement of all of the symptoms—seen the child which had been lethargic, semi-comatose, with high temperature, difficult respiration, and mouth full of membrane, sit up within forty-eight hours in bed, without fever, and playing with its toys—will admit this is the best argument that can reach the average doctor.

Doctor J. Brannan: My experience with antitoxin has been confined, practically, to hospital cases, and I feel that the time has passed when hospital experience can be considered of much value in this discussion. Antitoxin must be administered early in order to get the best results, and cases do not as a rule reach the hospital until several days after the beginning of the disease. It is in private practice only that the disease can be recognized and treated early so that antitoxin may exert its greatest effect. We have now the experience of a large number of private practitioners, and they are more fitted to speak on this subject. I can hardly discuss Doctor Winters's views of antitoxin without discussing the public attitude he has assumed towards Willard Parker Hospital.

If his position is sound and his observations correct, the city of New York has been maintaining for eighteen months a hospital to which children have been taken and subjected to treatment which is not only useless, but which has in many cases led to their death. This has been distinctly stated by Doctor Winters, and cases described in detail; and as these statements have been made more than once here in this Academy, it is here that they should be disproved.

A few words as to what led to the use of antitoxin in Willard Parker's, and who is responsible for its administration. In the autumn of 1894 the Board of Health, in view of the claims made for it abroad, decided to give it a fair trial in wards under their charge as soon as a sufficient supply of the serum could be obtained. The hospitals of the Health Department differ from other hospitals of the city in that they have a resident physician who is directly responsible to the Board of Health and only indirectly to the Board of Visiting Physicians. The position of the Board of Visiting Physicians has been rather that of advisers and consultants. As a body we were entirely in favor of the step taken by the Board of Health. I state these facts to make it plain that all of the visiting physicians at Willard Parker's stood on the same level with reference to the use of antitoxin at that hospital.

All advocates of antitoxin state it must be given early and in efficient doses in order to produce its full effects. Doctor Winters claims that even when given under these conditions it is not only valueless, but—as seen by its action on mild cases—may even cause the death of the patient. In proof of this he cites twenty-five or thirty cases which had been injected on the first, second, or third day of the disease, and still died—cases taken from the early months of 1895 and 1896. Doctor Winters does not give the full details of the cases, but I have taken copies of the records of all the fatal second- and third-day cases during the first four months of 1895 and the same period for 1896—all the first-day cases recovered. There were nineteen for 1895. Twelve were two years old or less, two were between two and three, leaving only five cases above the age of three years. One was four, one five, one seven, one forty-five. Of these fatal cases, twelve had laryngeal stenosis requiring intubation, and seven had in addition pneumonia; five of the non-laryngeal cases also had pneumonia; and seventeen of the nineteen had either pneumonia or laryngeal stenosis or both. The single adult case when he entered the hospital showed impending delirium tre-

mens, and in spite of this the prognosis was put down "favorable," though I do not know why. Now, the prognosis of these cases, as stated in the records, instead of being "favorable" in all, was "good" in six, "doubtful" in five, "bad" in eight. Next let me take cases for a similar period in 1896, January 1st to May 1st—some thirty three fatal cases injected on the second or third day. Seven of these were less than one year of age, thirteen less than two, four just two, five between two and three, making twenty-nine under three years of age. Of these, twenty-two had laryngeal stenosis, nineteen requiring operation; fifteen had pneumonia; two suffered from sepsis; one—the only adult—was intoxicated on admission. The prognosis was stated on the records as "good" in two, "doubtful" in twenty, "bad" in three. The gist of the cases as given by Doctor Winters was, if I remember rightly: "Favorable prognosis practically in all; death after injection of antitoxin."

Regarding the statement that since the introduction of antitoxin into the hospital there has been much greater use of stimulants: it is the distinct impression of all physicians at Willard Parker Hospital that less stimulants have been employed during the last sixteen months, just as it was found the treatment diminished the amount of iron, etc., used. Through fear I might be deceived, I sent to the Health Department, and thus learned that the amount of alcoholic stimulants used during the period when antitoxin was employed was considerably less than one-half ounce per patient, while during the previous period it was two-thirds of an ounce. As to diarrhœa, which Doctor Winters says caused much trouble, I can only say none of the rest of us observed it; if anything we have been more troubled with constipation. Doctor Winters speaks of a very peculiar type of broncho-pneumonia which he attributes to the dissolving action of the serum on the blood; also of the great amount of suppression of urine, requiring all sorts of measures for relief; and of increase in albuminuria. I am not sure whether he also mentioned paralysis, but considerable stress was laid on cardiac weakness. There has been no change in these respects. The cases have been just about as they were before, so far as the general condition is concerned. I have seen no striking influence on the membrane, pulse, or temperature, or generally on the duration of the disease. But cases have recovered in greater numbers, though I am not able to say just why. None of the medical students were enthusiasts as to antitoxin so far as the hospital was concerned, though

some were enthusiasts on the basis of private practice. The mortality in 1894, previous to the use of antitoxin, was about thirty-four per cent.; in 1895, under the antitoxin treatment, about twenty-six per cent.

Doctor Winters made a comparison at the last meeting which seems just a trifle misleading. The figures for intubation the past year, since the introduction of antitoxin, gave a mortality of seventy-two per cent., as compared with eighty-five per cent. in 1894. Doctor Winters was not very much impressed with this apparent reduction of the mortality to seventy-two per cent., as he stated that the previous resident physician at Willard Parker's obtained a mortality of fifty per cent. in laryngeal cases. Note the difference—laryngeal cases, not cases of intubation! I do not know what was the mortality from laryngeal cases during the use of serum, but believe it to have been forty-five per cent.

Doctor Winters has spoken of so many cases coming in since January, 1895, with nothing in the throat, but I found, according to the books, one-third of all the cases in 1894, before the use of antitoxin, had no membrane or but a small amount. During the springs of 1894 and 1895, and the autumn months, I was met over and over again with the statement by the resident physician that there were two or three cases with nothing in the throat.

It is curious that in the new disease described by Doctor Winters there have been no post-mortem findings, though many post-mortems were made last year; I expected to hear the results of the autopsies, though perhaps these were included in the portion of the paper not read. So far as I can tell, the lesions were such as were seen before the use of antitoxin—broncho-pneumonia, fatty degeneration of heart, nephritis—though I am not sure. Kalisko, who has been professor of pathology and pathologist to the University of Vienna since 1882, has made some thousand autopsies on diphtheria, seventy-five since the introduction of antitoxin, and he is convinced the serum influences the diphtheritic process favorably—that thereby the membrane is more easily separated, and often loosened. To be sure, the same thing was seen before antitoxin, but never to the same extent or so soon after the onset of the disease. It is necessary, however, that a certain period of time should elapse after injection, and that the dose should reach a certain amount, for, if it is too small, separation of membrane cannot be observed; when the process has penetrated deeply, the effect is lost. Kalisko states that at times, before the use of antitoxin, all cases would show nephritis,

then there would be a period when there would be none; and it has been so since; he is positive antitoxin has no effect in producing nephritis. A year ago Doctor Winters asked why we should give antitoxin in laryngeal cases. The findings of Kalisko, it seems to me, show that it should be given for the effects upon the membrane.

I understand Doctor Winters quoted a number of persons attached to the hospitals of the Health Department as being unfavorable to antitoxin, adding that some had gone so far as to say they knew cases which had died from the use of it. Now, it appears to me Doctor Winters did not realize what he said when he placed such words in the mouths of men who were appointed by the Health Department and who can be displaced if the Department so choose. I have heard from some that Doctor Winters did not altogether understand the statements they made.

Regarding the opponents of antitoxin: Hausmann (who is supposed to reflect the opinion of Virchow) had nothing more to say when Virchow, on observing the results at the Children's Hospital, Berlin, changed his opinion and became a convert; Kasowicz, of Vienna, was a disbeliever when he reported eight cases, but he has had nothing to say since. Lennox Brown was once a disbeliever, but I cannot say how he stands now. Two of those quoted by Doctor Winters as being opposed to antitoxin, one in Paris and the other in England, are young men without sufficient experience with diphtheria previous to the introduction of antitoxin to enable them to appreciate the improved results under the latter.

Doctor Winters has stated that all claims for antitoxin have been abandoned. I do not know whether he really meant to go as far as that. I have looked over the literature of the last two weeks, and find four or five papers, all favorable to antitoxin. But, as I said at the beginning, I am not here so much to speak in favor of antitoxin, or to endeavor to demonstrate its value, as to prove (and I think I have proved) that Willard Parker Hospital is not responsible for the death of any of the children which have been sent there.

Doctor H. W. Berg: Concerning broncho-pneumonia, which Doctor Stowell thinks is more frequent since the use of antitoxin, I have not seen it as frequently as in former years; but I can understand why cases treated with antitoxin in large numbers should show broncho-pneumonia and other secondary complications of diphtheria far more frequently than under older methods of treatment, for it has been found antitoxin keeps patients alive a much longer time, and

the longer they live the more time they have to develop complications. I had expected to hear in Doctor Winters's paper all the possible objections to antitoxin. I have spent time, money and energy to bring together all possible objections, and when it was all summarized I felt there was not so much to it. In the first place it is all based on hospital experience, and there are several reasons why hospital cases are not the best on which to base a judgment. The mother sends the child only after unsuccessful efforts to keep it at home; it is sent late and in bad physical condition. Any judgment based on hospital statistics is necessarily fallacious. I have found, on looking over private cases, that I very rarely had broncho-pneumonia after the membrane disappeared; and very rarely indeed did patients come back with nephritis. Occasionally, in hospital wards, a case develops pneumonia. Broncho-pneumonia is the most frequent cause of death in hospital diphtheria; but Doctor Brannan has proved that fair results were obtained in Willard Parker's during 1895 as compared with those obtained in 1894. As one of the speakers aptly remarked, no medicine, no specific, cures every case. As to diarrhœa in hospital, I can recall but one case (in a child with rickets) which could not be checked easily. As to kidney disease, the last four months I have not seen it quite so often as in former years. If antitoxin causes death, would we not hear more of it? One can almost count on his fingers the number of cases in this country. The only conclusion is, that the cause of the sudden death was something accidental in the injection of the antitoxin; a great many things might occur, even from injection of water. In man one cannot certainly have those favorable conditions that accrue to laboratory practice on animals; nevertheless, in private practice I have found antitoxin most marvellous in diphtheria, and consequently I have such confidence in it that when it is injected I am willing to say to the parents that within twenty-four hours the throat will be clear or the membrane preparing to separate, and in most cases the prediction is verified.

Doctor August Caillé. Doctor Winters gave only one side of the argument, and did not give the latest figures, which seem to show that even in hospital practice the reduction in mortality is very great. Doctor Winters has not informed us that the French awarded Behring a prize, and I am sure they would not send any money over the Rhine to one not entitled to it. The American Pædiatric Society recently made a collective investigation with reference to the antitoxin treatment

of diphtheria. The returns were 6000 cases in private practice, from one hundred and fourteen cities, of fifteen States, including Canada, and cases in which bacteriological examination was not made were excluded; Behring's statement that the mortality in diphtheria could be reduced to less than five per cent. was thoroughly substantiated. My personal experience has been very favorable, and the cases most convincing were those of diphtheritic croup. My record formerly was a mortality of seventy per cent. in an experience embracing several hundred cases; but since using antitoxin I have seen ten consecutive cases of diphtheritic croup recover—something I never saw before. I wrote to Doctor O'Dwyer inquiring if he had seen similar results, and if antitoxin affected intubation, and the reply was: "Before I used antitoxin I put in the tube. Now I take that out." But opposition is one of the accompanying features in the evolution of scientific medicine; we had it in vaccination, and still have anti-vaccination societies; antiseptic surgery, too, was at first ridiculed. So with antitoxin. But I hope to see the day when the Pharmacopœia will be deemed rubbish, or rendered so small it can be carried in a vest pocket.

Doctor H. Ernst: I have had charge of the production of antitoxin for the Board of Health of Boston, and reports of all cases in which this substance has been used are returned to me. The general practitioner should be impressed with the necessity of always securing a reliable serum. Not all antitoxin is the same, and even the best does not keep forever. I have received reports from 1164 cases, all told—983 treated at the Boston City Hospital, and 181 in private practice. Of the 983, only 152 died, a mortality of 15.6 per cent., as compared with a mortality of 40 per cent. for years past.—This list includes cases where the actual cause of death was not diphtheria at all. Of the cases in private practice, 166 recovered, leaving a mortality of 8.2 per cent. The general mortality of all the cases was 14.3 per cent. Regarding the harmful effects of antitoxin used for immunizing purposes, I have not been able to find a single family in which its use has been followed by the development of diphtheria. Of a total of 346 cases, 273 were in the children's hospital, where it is a routine practice to immunize nurses, patients, and resident staff, once a month. During the last fourteen months we have succeeded in completely obliterating two epidemics of diphtheria by this procedure. Of eighty-four cases in private practice, there is no report of nephritis. It

appears to me these facts alone should sufficiently answer the accusation that serum produces ill-results.

Doctor George McNorton: About a year ago I reported nineteen cases of laryngeal diphtheria, with seventeen recoveries, and my report was criticised by Doctor Winters, who declared it meant nothing. But it certainly did mean something. My subsequent experience has satisfied me of the decidedly curative value of antitoxin. Before antitoxin, forty-eight out of seventy-two laryngeal cases died; with antitoxin, thirty out of eighty-nine have died. All of the eighty-nine were consultation cases, to which I was called to do intubation, and the tube was introduced in eighty-four of them.

Doctor W. H. Park: The important point is that in 1895 the death-rate all over the world, where antitoxin was used, was diminished. In Washington, where it has been used most uniformly, there has been the least number of deaths from diphtheria; it has been used in 2000 cases for immunizing, without a death, and only two persons showed serious symptoms—of these two, one had a convulsion, the other hyperpyrexia. A number of hospital epidemics have been completely stamped out. This week we sent out notes to a number of physicians having fatal cases, and received answers from three-fourths of them which were very interesting: Of twenty-five fatal cases, fifteen had received no antitoxin treatment—some of them were too far gone; only one of the other ten received it early, and in that the physician gave only an insignificant dose (500 units). Regarding Doctor Winters's remark that "the bigger the dose of antitoxin, the worse the effects," I may say my worst cases have been given big doses and my mild cases smaller doses, so that naturally among those receiving the larger doses there should be the greatest mortality—not because of the remedy, but because of the character of the cases.

Doctor Herald: The mortality from diphtheria in Newark (N. J.) since the introduction of antitoxin by the Board of Health appears to have been reduced about one-half.

Doctor H. F. Koester: In tenement districts I injected, for the Board of Health of New York City, 200 cases during one period, with a mortality of twenty per cent.; and during another period sixty cases, with a death-rate of fifteen per cent. I have immunized 355 cases, four of which developed diphtheria within twenty-four hours, showing they must have been infected before the injections were made. I saw more rash when I used less concentrated serum.

Doctor J. M. Mabbot: It does not appear

to me that the number of deaths from diphtheria has markedly diminished since the introduction of the antitoxin treatment. In my own experience a number of cases which before the introduction of the bacteriological examination would not have been considered diphtheria, have been so pronounced by the Board of Health. The few cases of which I have knowledge where antitoxin was used in private practice were mild ones. My position is that of Doctor Peabody—I am awaiting further experience with antitoxin before I can feel assured as to its value in diphtheria.

[Doctor Winters here corrected some errors in Doctor Thomson's statistics of diphtheria in England, Germany, and Copenhagen. The correction spoke against antitoxin. He added:]

The reduction in mortality from antitoxin treatment is only apparent, and due to the increased number of cases of diphtheria reported, or in which a diagnosis of that disease is made, and not to an actual reduction in mortality. This is also true of Boston. Doctor Ernst has told us the mortality in that city for 1895, under antitoxin, was 14.4 per cent., while in 1893 it was 32 per cent., but he neglected to state that in 1895 there were 112 more deaths from diphtheria than in 1893. So it is with the statistics for Newark, and over the entire country and world. Again, due consideration must be given the character of the disease, otherwise the mortality rate for any one year in a city is worthless.

Regarding intubated cases, the mortality in this class and in tracheotomy cases is lower in certain parts of the world without antitoxin than at Willard Parker's with antitoxin.

[Doctor Winters here corrected some misunderstandings which Doctor Brannan had regarding his paper and cases cited from Willard Parker's. The cases were not of any particular part of the year.]

I believe any one who will go into Willard Parker Hospital and study the records carefully will become convinced that since the introduction of antitoxin there is a totally different clinical record from what was seen prior to its use. I cannot conceive of any other reason for this difference than the introduction of the antitoxin treatment. Regarding evidence from cases in private practice, I am very sorry Doctors Dorning, Francis Huber and other gentlemen have not given their experience. Doctor Dorning was compelled to give up serum treatment

because seven consecutive cases in which he used it *died*; and Doctor Huber remarked to me, "Antitoxin is a humbug."

It has been said to-night that I am prejudiced against the use of antitoxin. Before we began the regular use of antitoxin at Willard Parker's, five cases were treated with it, and four out of the five died, and the fifth was desperately ill. These five cases led me to feel the greatest care and anxiety with regard to the treatment. Am I prejudiced against anything which can be of use in such a disease as diphtheria? The man who would be prejudiced against a specific for diphtheria should not be allowed to practice medicine. If there is such a specific, nobody can want it more than I. Could I have found that antitoxin did no harm, even though valueless, in the treatment of this malady, I would have said nothing against it. It is because I believe it to be dangerous that I have spoken; and the time will come when every member of this Academy will feel with reference to antitoxin as I do—as I have, at great sacrifice, expressed myself here to-night.

THE DAY OF THE SPECIALIST.

"Two of a trade can never agree,"
The proverb said of old,
And never a doctor could there be found
His brethren to uphold.
But now they dwell in harmony,
And I'll tell you how 'tis done:
The doctors have split their trade, d'ye see,
There's a slice for every one!
The winter winds have harmed your throat—
You must go to Dr. B.
"Your stomach is wrong," he calmly says,
And passes you on to C;
You mention to C that pain in your eye
That worries you night and day—
"An oculist case," he quickly replies,
"Just call upon Dr. J."
Too much Burgundy has blossomed out
In the joint of your great toe;
Now where is H, so famed in gout?
To him you must swiftly go.
And, when with doctors and bills you're versed,
Till all your nerves succumb,
To minister to a mind perplexed
Another M.D. must come!
At last you are near your latest breath,
You find yourself laid low—
The faculty all are in at the death
To give you leave to go;
But what's the matter? Among them all
They can't exactly tell,
For "diagnosis" who but X
Can answer the question well?
And now life's fitful fever is cured
By a greater doctor still;
The patient is sleeping well at last,
And the heirs have read the will.
But e'en in his tomb his friends report
A specialist's care he'll need,
The "Alienist" Z must appear in court
Lest his cranky bequest succeed.

—Pittsburg Post.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JULY 10th, 1896.

Editorial.

DEATH OF SIR J. RUSSELL REYNOLDS.

Sir J. Russell Reynolds, F.R.S., died on the 29th of May, at the age of sixty-eight. He was educated at University College, London, where he subsequently became Professor of the Principles and Practice of Medicine. In 1869 he was elected a Fellow of the Royal Society. On the death of Sir Andrew Clark in 1893 he became President of the Royal College of Physicians, which office feeble health compelled him to relinquish at the recent annual election. Sir J. Russell Reynolds's work on "Diseases of the Brain and Spinal Cord" is among the most valuable contributions to nineteenth-century medical literature; and the "System of Medicine" of which he was the editor stands to-day above anything of the kind that has ever been published, and as a proof of his extraordinary sound sense and good judgment. Doctor Reynolds received the honorary degree of LL.D. from the University of Aberdeen and also from Edinburgh University.

NEW HUMAN PARASITE.

Mr. Henry B. Ward, Professor of Zoölogy in the University of Nebraska, claims to have differentiated a new, or hitherto unknown, species of tapeworm that makes the human its host, and which he specifically designates as *Tania confusa*. Thus far but two specimens have been seen, which present marked characteristics differentiating them from *T. solium* or *T. saginata*. He describes the parasite as being about five meters in length, and

the terminal proglottids, just ready to be separated, from 3.5 to 5 millimeters in width.

These proglottids are, as represented in Fig. 1, of nearly uniform breadth throughout their entire length, save that close to the end a prominent widening is found, to which the

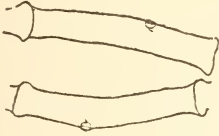


FIG. 1.—Two segments from end of chain, *Tania confusa* n. sp. Natural size. (Original.)

subsequent proglottid is attached. The sexual spore is easily seen, though it does not project markedly beyond the margin of the segment. One meter from the posterior end of the specimen the proglottids measure in length 15 millimeters, and 7.5 millimeters in width, and a meter further forward they are just about 9 millimeters square. In the anterior third of the worm the segments are 4.5 millimeters long by 3.5 wide, and near the anterior end 1 to 1.2 millimeters long by 0.8 to 1 wide.

It is evident, then, this parasite is much more slender than *T. saginata*, and Mr. Ward assumes the new species never attains the broad form which is so strikingly present near the middle of the chain in specimens of the latter species. Cross-sections also show that the new form is much less muscular, approaching more nearly to *T. solium*, from which, however, it differs in many respects. A positive diagnosis of the species, says Mr. Ward, can be made from the terminal segments, coupled with the general size and shape of the species.

The most striking peculiarity of *T. confusa* is, however, in the head, which is small (Fig. 2) and measures only 0.3 millimeter in diameter. The four suckers are distinct but not prominent, and produce no apparent break in the outline of the head. Even under a low power the rostellum is shown drawn into a pit at the anterior apex.

The head in general is thimble-shaped, covered by six or seven close rows of minute hooks which taper in size from the apex of the structure toward the base. One recognizes without difficulty the clear, highly refractive appearance characteristic of such

chitinous structures. The diminutive size of the head led Doctor Ward at first to suspect that it was altogether lacking in this specimen. It is probable that the rostellum, with its mass of hooks, gives a firm hold on the intestinal wall of the host.



FIG. 2.—Head of *Tania confusa* n. sp. Highly magnified, $\times$ about 125. Drawn with Abbe camera. Leitz Oc. 2, Obj. 5. (Original.)

Mr. Ward supplements his paper with a table of measurements for the three species of tænia, the measurements for *T. solium* and *T. saginata* being taken from Leuckart:

	<i>T. saginata.</i>	<i>T. solium.</i>	<i>T. confusa.</i>
Length.....	4-8 m.	2-3 m.	5 m.
Length of terminal proglottids.....	18-20 mm.	10-12 mm.	27-35 mm.
Width of terminal proglottids.....			3.5-5 mm.
Greatest width of chain.....	12-13 mm.	7-8 mm.	8-9 mm.
Diameter of head...	1.5-2 mm.	1 mm.	0.3 mm.
Diameter of suckers			.12-.15 mm.

ABORTIVE TREATMENT OF TYPHOID.

For years John Eliot Woodbridge has been an earnest, consistent and indefatigable advocate of an abortive treatment of typhoid fever; and during this period—as might have been expected—he has met with constant opposition, fierce, active, virulent, and passive, his conclusions being denied by many able men.

Whatever may be the truth regarding the so-called "Woodbridge Treatment," it must be admitted that Doctor Woodbridge himself is not only honest in his contentions, but

thoroughly convinced of the justness of his deductions. To a certain extent, at least, THE MEDICAL AGE is willing to uphold him—that is, it emphatically echoes the statement that “typhoid fever *can* be aborted.” This was learned by the writer long before the Woodbridge treatment was ever heard of: many cases of unmistakable typhoid have been cut short in his hands and in the hands of others by means of calomel in large doses—the employment of this drug for such a purpose being a logical sequence to the discovery that it would abort pneumonia if early employed.

Calomel appears in all of Doctor Woodbridge's formulas, and there is every reason to believe it is the one essential ingredient thereof—the key, in fact, to whatever success may have been attained. Also, it must be realized that the process of trituration develops latent qualities in some drugs—notably calomel—and may even convert comparatively inert substances into agents of more or less decided activity. Again, the clinical evidence so far adduced in support of Doctor Woodbridge's method excludes the idea of coincidence as a determining factor: the happy issue has been too often repeated, and bears the endorsement of too many able men.

The Woodbridge formulas consist of calomel, podophyllin, and guaiacol carbonate, very thoroughly triturated together, to which is also added eucalyptol, menthol, and thymol, in varying proportions. The last three ingredients, judged from therapeutic and chemical standpoints, are practically identical in action, and are so admitted to be by Doctor Woodbridge; yet with an insistence that is not peculiar to himself, but that obtains to all practitioners, he refuses to accept one as an equivalent for all, because he “fears to exchange the tried formulas that have served so well,” preferring to rest under the imputation of advocating polypharmacy and of ignoring direct therapeutic application. There is, however, nothing either unjust or improper in this. There is perhaps no practitioner living who does not to a greater or less extent make a fetish of some one therapeutic agent to which he has become accustomed, or who does not on one occasion or another prescribe drugs which deep down in his heart he admits to himself

are superfluous, or at least possessed of uncertain or doubtful therapeutic activity—and this merely because he is in the habit of so prescribing, and experiences that superstitious feeling which is ever inherent to mankind, and which amounts practically to a fear that to drop this one remedy might be “unlucky.” True, this is unscientific and tends to stultify the claim that medicine is strictly a physiological science; but such little superstitions are extremely difficult to get rid of, and after all are of little moment, inasmuch as they are rarely productive of harm.

We must admit personal lack of practical experience with Doctor Woodbridge's treatment, and also acknowledge that, through natural conservatism, we have been decidedly inclined to regard the same with suspicion; nevertheless, two long and earnest conversations with Doctor Woodbridge, a perusal of numerous letters to him from some of the ablest men on the continent, and a thorough and comprehensive examination of his book, compel us to admit that his claims, whether right or wrong, are too strong to be idly pushed aside or ignored. If for no other reason than the evidence already adduced in favor thereof, they deserve at least careful consideration and study in order that a definite verdict may be had for all time.

As regards Doctor Woodbridge's book (just published), we must frankly admit it is a disappointment, even though it embodies a vast amount of material that, aside from the special contention of the author, is of great value. It is particularly unfortunate that the volume is printed from bad type on poor paper, and illy bound; also that, instead of preparing a work that would serve as a text and guide book for the practitioner, Doctor Woodbridge has been content to put forth merely a compilation of such papers and lectures as have been presented to different medical societies, with all the superfluity and crudeness that pertain to contributions of this class. Thus the volume lacks directness, homogeneity, and practical application, though it must be added a comprehensive index goes far to overcome these faults. A text-book devoted exclusively to the discussion of continued fever in all its protean forms, arising from environment and locality, would be especially pertinent at this

time, for the only work that has appeared of late years that deals at all carefully with continued fevers is that from the pen of Professor Joao Vincente Homem, of Rio Janeiro, which unfortunately is buried in the Portuguese tongue, except such small portions as have had the good fortune to be translated for the periodical medical press. A complete and thorough work we had a right to expect from Doctor Woodbridge, considering the claims he has so sedulously advocated and maintained for a number of years; the treatment, too, as laid down, smacks rather of the rule-of-thumb variety, not enough attention being paid to the physiological action of the remedies employed.

Doctor Woodbridge's treatment is now on its trial and being employed by a vast number of practitioners throughout North America, and must ultimately receive the verdict that will either uphold or condemn it—a verdict in any event that will doubtless be just. Whether it is all that is claimed for it, as being the best means for repression and abortion of typhoid fever, remains to be seen; Doctor Woodbridge himself is not radical enough to assert this, but claims only that it is "the best yet developed," and he frankly admits a belief there is room for improvement, and trusts such will be speedy.

In the meantime we wish Doctor Woodbridge all success, and hope his best aspirations may be realized, whereby he will have conferred a boon not alone upon suffering humanity, but upon an immense body of worried and troubled practitioners. Even if his claims are not all substantiated, it is reasonable to suppose that the method is the entering wedge that will ultimately lead to the securing of more practical and definite measures whereby to deal with typhoid. As has been already stated, typhoid fever *can* be aborted, but the precise conditions under which this has been brought about in the past are, unfortunately, too indefinite to enable one to draw accurate conclusions therefrom; and the number of cases thus aborted in proportion to those that have run their course either to recovery or fatality is infinitesimal—not to exceed five per cent., and perhaps three per cent. would be a fairer measure—consequently too few to afford a basis for accurate theory. But if one case of typhoid can be

aborted, the query naturally asserts itself: If due attention and study be given to the subject, may not *all* cases of typhoid in course of time be brought to an equally favorable termination?

The question ahead of the profession is one of great moment, and not to be answered by any one man's *ipse dixit*, by puerile disputes, or by petty wrangling; it is merely how may be developed the best method whereby to secure a desired result, and likewise an application of that method that will meet the requirements of general as well as individual cases despite the vagaries and phases arising from environment.

EDITORIAL NOTES.

The X Rays and Bacteria.—

From the Western States comes the claim that Roentgen rays have been found deadly to bacteria. Such assertion attracted little attention here, since it was not accompanied by any evidence that could be deemed satisfactory. Abroad, however, it has apparently been taken more seriously, and as a result Professor G. Sormani contributes a paper (*Rendiconti del Reale Istituto Lombardo*) in which are described experiments on sixteen different species of bacteria, both in cultures and when inoculated into live animals, whereby the author was enabled to state definitely that the Roentgen rays are entirely inoperative in this direction.

A Natural Query.—

A Detroit youngster, in his sixth year, had for several months, with all the insistence of a youth of his age, pestered his parents for a bicycle. The other evening his father, in response to the usual plea, suggested it might be well to pray for the desired wheel. Accordingly at bedtime the youngster's petition was put up; and the following morning, full of faith, he descended to the hall, to view the treasure expected to be there. Sure enough he found a spick-span, brand-new—*tricycle!*

A look of utter disgust overspread Eddie's countenance. "O God," he said, "DON'T *you* know the difference between a bicycle and a tricycle?"

Elm Bark for Cancer of the Rectum.—

Doctor Monroe, of Louisville, asserts he has had very favorable results from the local and internal use of slippery-elm bark in cancer of the rectum—he reports four advanced cases of undoubted character in which complete relief was afforded, the diseased tissue being almost or entirely absorbed. He employs, as a rectal injection, fresh slippery-elm bark in water; also commands the patient to drink as much as he is able of slippery-elm mucilage, the juice of a lemon being squeezed into each glassful to make it acceptable.

The Size of Teaspoons.—

Recently a physician presented to his medical association a collection of spoons accumulated at the houses of his patients for the purpose of showing the wide range of measure—the variation was from two-thirds to three times the standard capacity. The largest teaspoon held exactly five times as much as the smallest. These were exhibited as a warning in ordering dosage of medicine by domestic measures.

Russian Medical Congress.—

This assembly was held in Kiev in April of this year, nearly 1200 members being present, forty-seven of whom were of the fair sex. In the Section of Dermatology it was decided to establish a special Russian journal devoted to experimental investigations and clinical researches on skin diseases, to be edited by M. T. Stukowenkow and O. B. Petersen.

The Plague in Hong Kong.—

The bubonic plague has broken out again in the Orient, and from telegrams sent to the Colonial Office, London, it seems that seventy fresh cases occurred in the colony during the first fortnight in May; the death-rate during the same period gained ninety-one.

A Blow for the T. T.'s.—

Burggraave, founder of the docimetric system and Professor of Medicine in the University of Ghent, is now in his hundredth year. And this is not all—he partakes of spirits and beer freely and smokes inordinately.

Items and News.

The Fall of Adam and Eve.—

An Anglo-French version of the trouble of our first parents appears in an exchange as follows:

Monsieur Adâm he wake up—he sees une belle demoiselle asleep in ze garden. *Voilà de la chance!* “*Bon jour, Madame Iv.*”

Madame Iv, she wake; she hold her fan before her face. Adâm put on his eye-glass to admire ze tableaux, and zey make von promenade.

Madame Iv, she feel 'ungry. She see appel on ze arbré. Serpent *se promené sur l'arbre*—make one walk on ze tree.

“Monsieur le Serpent,” say Iv, “vill vous not have ze bonté to peek some appel? *j'ais faim.*”

“*Certainement, Madame Iv, charmes de vous voir.*”

“*Hola, mon ami, ar-r-retez, vous!*”—say Adâm—“Stop, stop! *que songez vous faire?* Wat madness is zees? You must not pick ze appel!”

Ze snake, he take one pinch of shnuff, and say: “Au, Monsieur Adâm, do you not know how zere is nossing proheebet ze ladies? Madame Iv, permit me to offer you some of zeese fruit *défendu*—zeese forbidden fruit.”

Iv, she make one curtsy—ze snake, he fill her parasol wiz ze appel. He say: *Eritis sicut Deus*. Monsieur Adâm, if he eat ze appel, will become like von Dieu; know ze good and ze evil—but Madame Iv cannot become more of a goddess zan she ees.”

An' zat feenish Madame Iv.

A Substituted Infant.—

I was called to a lady in confinement, and found my patient on the bed with a baby wrapped in her petticoat in her arms; the nurse was there, but had only just arrived. The story was that while husband and servant were absent the baby had been born. On examining the woman I found none of the usual signs of delivery. The perineum was rigid; uterus normal, with a contracted os; no discharge of blood, neither was the bed soiled; no placenta to be found, but the patient suggested this had been eaten by her dog. The baby was a fairly developed girl from six to nine days old, with the blackened stump of the funis that had come away a day or two previously; she was quite clean, dry, and had apparently been well cared for since birth; in the folds of the groins and axillæ there was violet powder. The husband was informed his wife was not the mother of the

child, and that she had not been recently delivered.

The only motive was the strong desire to have a baby; and I am of opinion that this was the outcome of reading the Salisbury case. The next day the woman admitted the truth, and stated that she had obtained the baby by replying to an advertisement. I am sure the husband was quite innocent in the matter. This case affords another illustration of the fact that there is no end to the vagaries of hysterical women.—DOCTOR F. P. NICHOLS, in *Medical Press*.

No Pay, No Work.—

It has been decided by the Supreme Court of Illinois that the health authorities have no right to require physicians to report contagious diseases or births without remuneration. It is a nice question whether the physician, whose aim is the prevention as well as the cure of disease, is not morally bound to warn the community of danger when this can be done at a not unreasonable expenditure of time and labor. At the same time it is unjust on the part of the community to compel him to do so, and even to force him under pain of imprisonment or a fine to pay for the postage on such notification. Of course, the State cannot afford to pay a large fee for such service, and neither would physicians demand it, but it would seem as though a compromise might be effected whereby the physician would receive twenty-five cents for each notification of a case of infectious disease or a birth. Such a plan is, or was, in existence in Connecticut, and we believe worked satisfactorily to both the State and its medical benefactors.—*Medical Record*.

Inherited Age.—

Sir Benjamin Ward Richardson has published a series of observations on the duration of life of the offspring as compared with that of the parents. He considers that if the ages of the two parents and of the four grandparents be added together and divided by six, the age of the case in point will be told, with an average variation of not more than two. If the ages of the parents are high, the offspring tends to improve on them; if low (say an average of forty or lower), the life of the offspring will probably be still shorter.—*Dublin Journal of Medical Science*.

Effervescing Essences.—

A French chemist recommends the use of fragrant essences in the form of effervescing powders. The perfume is poured on pulver-

ized oxalic acid, which absorbs large quantities of the essences and retains the odors. The oxalic acid thus treated is divided into powders, each one being accompanied with a powder of bicarbonate of sodium. When both powders are placed in a glass of water, the fragrant constituents of the essence escape with the carbonic acid and are uniformly distributed about the room. The poisonous oxalic acid can be replaced by citric or tartaric.—*Popular Science News*.

Tuberculin Denounced.—

At a meeting of the Balneologic Society, held recently in Berlin, Koch's tuberculin was fiercely denounced by many eminent professors in attendance. Leibreich declared it had been discredited by all reputable physicians, even veterinary practitioners, as its use was directly dangerous. Hausmann added that a greater percentage of lung diseases had been cured by allowing Nature to help herself, than by the treatment of experts. A debate arose on the report that Koch is preparing a new publication in advocacy of tuberculin.—*New York Polyclinic*.

Very Proper!—

The medical society of Berne, Switzerland, is endeavoring to prevent the publication of notices of cases of suicide. It has been observed that suicides have frequently been suggested by these means.—*The Hospital*.

Removal of Blood-stains.—

The best way to remove blood-stains is to soak the article soiled in warm water to which a teaspoonful of tartaric acid has been added. No soap is needed.—*Centralblatt für Gynäkologie*.

Almost a Centenarian.—

Doctor William Sprague, of Coldwater, Michigan, recently celebrated his ninety-ninth birthday, and is still an active man. He has practiced his profession for over half a century.

New Wound-dressing.—

The Japanese surgeons during the late war employed as a dressing for wounds the ash of rice, the contained carbonate of potash making it antiseptic.—*Exchange*.

Is This True?—

The "X" rays have been found to exert a strong depilatory action, without causing pain or other indication of disorder.—*New York Medical Times*.

Book Reviews.

QUEEN MOO AND THE EGYPTIAN SPHINX. By Augustus Le Plongeon, M.D. Cloth; 8vo; pp. 277. Price, \$6.00. The Robert Clark Co., Cincinnati.

Those who are familiar with the previous writings of Doctor Le Plongeon will gladly welcome this new volume, which affords new information regarding the archæology of Central America and the Peninsula of Yucatan. Doctor Le Plongeon's are the only systematic American researches that have been made in this country worthy of note. Desiré Charnay and some others have examined portions of Southern Mexico, but only in a desultory sort of way; and so far as Charnay's work is concerned, manifestly he was unfit therefor and ignorant of the first principles of archæological science. Doctor Le Plongeon, however, brings to bear not only twenty-five years of exploration in Yucatan and Central America, and knowledge of the Maya tongue, but also the mind and experience of a trained Egyptologist. The story of Queen M^{oo} and of her family manifestly is the original of the tale of Adam and Eve, the "Fall," etc., as now found in Genesis, but much more full, and also affords a *raison d'être* for the tragedy depicted in the latter. It is impossible to give a fair review of a volume of this character within the limited space at our command. We can only add that this is the greatest contribution to the archæology of the world that has yet appeared, and no one interested in the discovery of the origin of the human race, the Biblical myths, and the development of religion, can afford to be without it. Easily Doctor Le Plongeon is the foremost archæologist on this continent, and it seems strange the value of the work he has undertaken has not been more fully appreciated. Unfortunately, however, archæological research as fostered in the United States partakes too much of a made-to-order science, since it is carried on for the most part by individuals without special training, but who apparently have abundance of "political pull;" so, too, most of the volumes issued by the Government on this topic are dreary wastes in which crude theories and guess-work replace trained observation and practical experience, with only here and there a real scientific oasis.

ON SERPENT WORSHIP AND ON THE VENOMOUS SNAKES OF INDIA. By Sir Joseph Fayrer, K.C.S., LL.D., M.D., F.R.S. Paper; 8vo; pp. 122.

AN INQUIRY INTO THE FORMATION OF HABIT IN MAN. By Alfred T. Schofield, Esq., M.D., M.R.C.S.E. Paper; 8vo; pp. 37.

HOW THE WATERS IN THE OCEAN BECAME SALT. By Edward Hull, LL.D., F.R.S., F.C.S. Paper; 8vo.

THE DIFFICULTIES OF EVOLUTION. By Walter Aubrey Kidd, Esq., M.D., B.S., M.R.C.S. 8vo; pp. 19.

REMARKS ON THE PAST, PRESENT AND FUTURE OF THE AUSTRALIAN FLORA. By Reverend W. Woolls, Ph.D., F.R.S. (N. S. W.), LL.D. Paper; 8vo; pp. 30.

All published by the Victoria Institute, London, England.

These five constitute an exceedingly interesting group of monographs which have been printed in order to secure more general dissemination of information. They can be had through the bound volumes of the transactions of the Victoria Institute (Philosophical Society of Great Britain), which are available only to members.

All are of exceeding interest, and their titles sufficiently indicate their scope. We cannot, however, pass by the monograph on "Serpent Worship" without remarking that it is the most complete paper on the venomous reptiles of India that has yet appeared in concise and practical form.

We are especially indebted for the foregoing to the kindness of Captain T. Petrie, Honorable Secretary of the Victoria Institute.

TRANSACTIONS OF THE ROYAL ACADEMY OF IRELAND. Volume XIII. Edited by William Thomson, M.A., F.R.C.S. Cloth; 8vo; pp. 464. Fannin & Co., Limited, Dublin.

This is a particularly valuable volume, and embodies discussions on "Smallpox," "Argyria," "Arsenical Multiple Neuritis," "Ecchymosis following Insane Excitement," "Friedreich's Disease with Genetous Idiocy," "Typhoid Fever," "Obstructed Bowel," "Cancer of the Jaw, Tongue, and Lips," "Adenoid Vegetations in the Naso-pharynx," "Appendicectomy," "Senile Cataract," "Restoring Lower Lip after Excision for Cancer," "Internal Strangulation," "Varicocele, Nævus, and Varicose Veins," "Malignant Disease of the Rectum," "Injuries of the Thumb," "Hernia and Taxis," "Hydrocephalus Associated with Spina Bifida," "Dysmenorrhœa," "Coeliotomy," "Leucorrhœa," "Severe Hæmorrhage," "Imperforate Anus," "Melanotic Tumor of Eyeball," "Spontaneous Fractures of the Clavicle," "Acromegaly," "Nephrolithotomy," "Sarcoma of the Female Urethra," "Histology of Epithelioma of the Cervix," "Fibroma of the Tongue," and "Hypertrophic Cirrhosis of the Liver."

There are, besides, several other notable articles in the domains of pathology, medicine, anatomy, and physiology, which space will not permit us to specifically mention. The type and illustrations are superb.

A TEXT-BOOK OF BACTERIOLOGY. By George M. Sternberg, M.D., LL.D. Pp. 679. Price, \$5.50. William Wood & Co., New York.

A work of this character, coming from such high authority as the Surgeon-General of the United States Army, cannot but command attention. Further, the "Manual of Bacteriology" by the same author was so well received by the profession as to

pave the way for the new volume, which embodies all the practical matter in the former together with such advances as have been made up to date, and likewise omits all those portions of the older work which were in any respect theoretical, or purely scientific without practical application.

In other words, the "Text-book of Bacteriology" is especially fitted for the use of the practitioner and student of medicine, and, considering the number and character of the illustrations as well as the practical nature of the text, it offers a work unsurpassed and perhaps unequaled by any volume hitherto published in any language. The publishers have evidently spared no expense in putting forth this volume, which fills a distinct want and will be widely appreciated.

TWENTIETH CENTURY PRACTICE. Volume V. Edited by Thomas L. Stedman, M.D. Cloth; 8vo; pp. 905. Price, \$6.00. William Wood & Co., New York.

This volume, which was crowded out of its place in the order of publication, is one of the most complete treatises on diseases of the skin and appendages that has yet appeared. Anatomy is treated by Doctor Charles W. Allen; Parasitic Diseases, by L. Duncan Bulkley; Erythematous and Bullous Affections, by H. H. Whitehouse; Eczema and Dermatitis, by James Nevins Hyde; Squamous, Phlegmonous and Ulcerative Affections, by H. Radcliffe Crocker; Papular Affections, by L. Brocq; Diseases of the Sebaceous Glands, by Arthur Van Harlingen; Diseases of the Hair and Nails, by Douglass W. Montgomery; Benign Neoplasms, by John T. Bowen; Xeroderma Pigmentosum, by Moriz Kaposi; Dermato-Neuroses, by H. Leloir. A very comprehensive index completes the volume.

TYPHOID FEVER AND ITS ABORTIVE TREATMENT. By John Eliot Woodbridge. Cloth; 8vo. Price, \$3.00. The Medical Publishing Co., Cleveland, Ohio.

For a number of years Doctor Woodbridge has earnestly and consistently urged his ideas regarding the management of typhoid fever, and with no small degree of success. He has availed himself fully of the opportunities to elucidate his theories before medical societies, and in this way has made a vast number of contributions to current literature. These appear to have been collated, condensed and summarized in the volume before us, which undoubtedly will be of interest to every practitioner, inasmuch as typhoid fever is a malady most ubiquitous, and common to every part of the civilized world. The work is certainly well worthy of perusal.

THE STOMACH. By J. H. Kellogg, M.D. Cloth; 12mo; pp. 357. Modern Medicine Publishing Company, Battle Creek.

This work bears evidence of having been prepared in the interest of a particular sanitarium and

at the same time intended to afford to the laity information regarding the stomach and the maladies to which it is prone. Both intents are doubtless laudable in their way, yet we doubt the advisability of endeavoring to educate the lay public in matters which at best can be only half understood, especially as such efforts invariably lead to pernicious self-medication and treatment that ultimately reacts upon both the sufferer and the practitioner he is subsequently forced to consult.

SPECIMENS IN THE PETER REDPATH MUSEUM OF MCGILL UNIVERSITY, ILLUSTRATING THE PHYSICAL CHARACTER AND AFFINITIES OF THE GUANCHES, OR EXTINCT PEOPLE OF THE CANARY ISLANDS. By J. William Dawson, C.M.G., F.R.S. Paper; 8vo; pp. 20. G. Robertson & Co., Limited.

This also is a paper presented to the Victoria Institute of Great Britain, of especial ethnological value, and throws considerable light upon a most mysterious race very little heard of in the United States, and whose existence has been one of the puzzles of modern times. The pamphlet is moreover illustrated with specimens of skulls. A comparison is drawn between these and other extinct races.

HOW TO FEED CHILDREN. By Louise E. Hogan. Cloth; 16mo; pp. 236. Price, \$1.00. The J. B. Lippincott Co., Philadelphia.

This is the gathering into book form of papers that have appeared from time to time in the *Popular Science Monthly*, *Lippincott's Magazine*, *Babyhood*, etc. They are based chiefly upon the dicta of such authors as T. M. Rotch, A. Jacobi, and others. There is a great deal that is of value, yet the fact cannot be lost sight of that there is no rule of thumb whereby infants and children can be fed either in health or disease.

MEDICAL AND SURGICAL REPORT OF THE PRESBYTERIAN HOSPITAL OF THE CITY OF NEW YORK. Paper; 8vo; pp. 256. The Knickerbocker Press, New York.

This is the first of a series of reports to be published annually. It embodies several very interesting papers, notably upon "Surgery of the Genito-Urinary System," "Caisson Disease," "Menigitis," "Dactylitis," "Gonorrhœal Urethritis," "Tetany," "Tumors of the Brain," "Supra-pubic Cystotomy," "Hip-joint Amputations," etc., etc.

THE WHITE VIRGIN. By George Manville Fenn. Paper; 16mo; pp. 330. Price, 25 cents. Rand, McNally & Co., Chicago.

This is a graphic account of a profitable lead mine discovered in England and subsequently manipulated by evil stock-brokers, to the detriment of the stockholders. Incidentally is woven a love tale in which the chief stockholder and the daughter of a retired officer play the principal parts.

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines.

The principal articles in the July issue are: "On Foot in Egypt and Palestine," by N. Tjernagel; "Vicksburg Thirty Years After the Surrender," by H. B. Pierce; "The Devil's Backbone," by Samuel Calvin; "Amana Colony," by B. M. Horak; "In Arkansas," by Th. Bentzon; "Military Telegraph in the West," by G. H. Smith; "La Guiblesse," by Georgiana Hodgkins; "The Fool of Port Andrew," by Richard L. Jones; "The Young Home-steaders," by F. W. Calkins. There are also several shorter sketches and a number of poems.

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The contents for July are: "Art and Life," by Vernon Lee; "Face to Face," by Louis Robinson; "Leigh Hunt," by F. W. Cornish; "America as a Power," by Alexander Maclure; "Agricultural Depression Unmasked," by T. M. Hopkins; "Letter on Turkey," by G. M. Müller; "The Memory of the Far East," by George Peel; "Olympic Games," by G. S. Robertson. Other notable papers are: "After Forty Days," "Lecky's Democracy and Liberty," "Men and Manners in Florence," "Captain Francis Lawton," "Editors," "With Friends who Cycle," "May Term at Oxford," "In a Norwegian Farmhouse," and "A King's Daughter."

THE AUK. Price, 75 cents; \$3.00 per year. L. S. Foster, New York.

The July issue of this well known quarterly journal of ornithology is especially interesting. The frontispiece represents Evermann's Ptarmigan (*Lagopus Evermanni*). Herbert K. Job writes of "The Ducks of Plymouth County, Massachusetts;" Walter Faxon of "John Abbot's Drawings of the Birds of Georgia;" O. Widmann of "The Peninsula of Missouri as a Winter Home for Birds;" A. W. Anthony of "The Black-vented Shearwater;" Arthur H. Norton on "Observations on *Histrionicus Histrionicus* in Maine;" Ruthven Deane of "The Passenger Pigeon in Confinement;" D. W. Prentiss of "Birds of Bermuda." There are the usual reviews of current ornithological literature, and general ornithological notes.

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The July issue contains a fine series of portraits of Longfellow. "Rudyard Kipling, as He Showed Himself to his Intimate Friends Just Before he Became Known to All the World," is the subject of a paper by E. Kay Robinson; Elizabeth Stuart Phelps writes of her "Recollections of Longfellow, Whittier, and Holmes;" Cleveland Moffett of "The Horseless Carriage." Other contributions are: "Lincoln as a Lawyer;" "A Coast and a Capture;" "A Woman's Account of Climbing the Matterhorn;" "The Present State of Painting in Germany;" and "The Growth of the English Power in Africa."

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the July issue is "A Judicial Error," by Marion M. Pope. The other papers are: "Decadence of Modern Russian Literature;" "A Twenty-dollar Bill;" "Pennsylvania and Her

Public Men;" "My Rural Experiences" (by H. H. Boyesen); "The Rector's Game-cock;" "The Southern Ideal;" "On Being Fond of One's Thoughts;" "An Old Story;" "The Story of Yankee Doodle;" and "With the Trade." The poetry is by Florence E. Coates, Margaret G. George, Jenny T. Ruprecht, and Grace F. Pennypacker.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

The July number begins the 133d volume of this well known publication. It opens with two timely articles—one from the pen of a traveler in Persia, describing some of the characteristics of that country; the other a description of the "Training and Life in the New York Fire Department." There are continuations of the "Reminiscences of Operatic Singers," by Albert L. Parkes, and the series of "Music in America," by Rupert Hughes. Other notable articles are "The Silk Industry of Japan" and "Elizabeth Cady Stanton."

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The July number is good midsummer reading. Julian Ralph writes of "Coney Island;" Brander Matthews of "The Poetry of Place Names;" Sir W. Martin Conway of "A Thousand Miles through the Alps;" J. Carter Beard of "A New Art," which shows the evolution in taxidermy in fifteen years. "Some Portraits of J. M. W. Turner" is by Cosmo Monkhouse. The stories are by T. R. Sullivan, Clinton Ross, and the late H. H. Boyesen. "Sentimental Tommy," by J. M. Barrie, is continued.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for June 27th contains: "The Future of the Academy;" "Editorial Notes and Comments;" "Saint-Front of Perigueux, and the Domed Churches of Perigord and La Charente"—II; "Spruce in Paper-making;" "In Streets and Papers;" "Legal Notes;" "The Stadion at Athens;" "American Excavations at Corinth;" "The Modern Stencil and its Application to Interior Decoration"—II; "Book Reviews;" "Societies;" "Personal;" "Current Notes."

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 a year. The Review of Reviews Co., New York.

The July issue contains an "Analysis of William McKinley," by E. V. Smalley; "The Conventions, Candidates and Platforms" are discussed by the Editor; Hezekiah Butterworth writes of "South American Poets." Other notable features are "Political Cartoons of the Month," "The Currency of All Countries," "The Sporting Impulse," "Records of Current Events," and "Contemporary Thought and Discussion."

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

In the July number a new scheme for Arctic exploration is described by Robert Stein; "The Banking Problem," by Logan McPherson, explains the evils resulting from incautious discounting of notes, and gives some suggestions for remedying them; Professor W. R. Newbold writes of "Suggestion in Therapeutics."

Therapeutic Brevities.

Alopecia Areata.—Begin by applying upon the diseased patch a layer of vesicating fluid; and the following day, after having removed the blister, apply upon the denuded corium a fifteen-per-cent. solution of nitrate of silver, with or without previous cocaine anæsthesia. If necessary, renew these applications after ten or fifteen days. The above is the method of Sabouraud, and by it the alopecia can usually be arrested at its onset, and the results obtained are much better than those of other procedures. After numerous trials with cupric electrolysis, I have come to the conclusion that this method does not give appreciable results: the passage of the current and the decomposition of the tissue are painful; there remain small wounds which leave deep cicatrices, depressed at the points where the needles have been applied; the hairs do not seem to grow in any noteworthy manner about the points of operation, and the progress of the disease has not been arrested in a sufficient number of cases to warrant its further use.—BROCQ, in *Journal of Cutaneous and Genito-Urinary Diseases*.

* *

For four years I have successfully treated alopecia areata almost exclusively with chrysarobin. Formerly I employed it in the form of an ointment of five to ten per cent., but now use it in "sticks" as follows: Chrysarobin, 30; colophony resin, 5; yellow wax, 35; olive oil, 30 parts. This is rubbed like a cosmetic on the scalp, care being taken as far as possible not to touch the hair; the head is then covered with a skull-cap, and the next morning the chrysarobin is removed with olive oil. After some days irritation of the scalp comes on, manifested generally by a characteristic redness due to the chrysarobin, very seldom by bullæ and pustules. When this occurs the frictions are replaced by applications of oxide-of-zinc ointment, which is also in due course removed with olive oil. As soon as the irritation has subsided, chrysarobin is again used. The result is satisfactory in proportion to the regularity and perseverance with which the treatment is carried out. This treatment has been very successful in twenty-two cases. Some cases have been cured in four weeks, but often the treatment has to be continued for several months.—LEISTIKOW, in *Monatshfte für Praktische Dermatologie*.

Carbuncle.—I have had several very severe cases, and though in positions not allowing

of pressure by bandage, I have effected the same purpose by free, judicious and frequent painting all over and beyond the inflamed area with collodion (not flexible), in graduated thickness toward the centre, securing outlets for pus and thorough disinfection by boring into the centre from several points with a pointed, charred piece of wood, usually a lucifer match, soaked in pure carbolic acid, on two or three occasions each day. The result has been immediate lessening or relief of pain, limitation of spreading edge, liquefaction of contents, which are forced out of the openings made by the contracting collodion, and rapid healing with little scarring—indeed, none except where the holes are bored. The worst case, on the back of the neck from mastoid to mastoid, and five inches across vertically, presented so little scar that it did not show through the short-cropped hair of a male patient at about a couple of yards' distance, there being no depression. I may add I have experienced this upon myself also, and relief of pain is great. For boils it is still more efficacious.—DOCTOR TOMKINS, in *The Lancet*.

Epistaxis of Diphtheria.—The patient, four years old, began to have bleeding from the nose on the fourth day. I gave internally the fluid extract of ergot ten to fifteen minims, three or four times daily, and locally took pledgets of absorbent cotton about one and a half inches long and nearly as thick as the little finger, or large enough to fill the nares, soaked them in a solution of alum (say a teaspoonful of alum to a third of a cup of warm water), and put them in the nostrils by means of ordinary small ear-forceps. The bleeding is generally from the anterior nares. There is a great diminution of fibrin in the blood in cases of diphtheria, and pressure is the safest and best manner of stopping the transudation. Alum is antiseptic in proportion of 1 to 225. I left the pledgets in both nostrils for two days. After removing the plugs the nostrils were douched with warm water and again plugged with the alum-soaked cotton. When the throat cleared of membrane, I removed the last packing and trusted to dusting equal parts of gallic and tannic acids in the nostrils by means of dry cotton dipped in the powder and then inserted and removed gently.—J. B. TURNER, in *Philadelphia Polyclinic*.

Induction of Premature Labor.—The patient is placed in the dorsal position with legs flexed so the vagina can be thoroughly irrigated with an antiseptic solution. A new,

solid bougie, previously thoroughly sterilized by immersion in a solution of mercuric chloride (1 to 500) for several hours, is then passed into the uterus, and by gently twisting allowed to insert itself between the membranes and the uterine wall.—This bougie can be inserted through a speculum or guided by two fingers in the vagina. Great care must be exercised not to rupture the membranes. When only an inch or two of the bougie remains in the vagina a light tampon of iodoform gauze is inserted into the vagina, and the vulva covered by a sterilized pad. For convenience the bougie may be introduced in the afternoon; softening and partial dilatation of the cervix will occur by morning. The bougie may be taken out and washed, and after the patient has been given an antiseptic vaginal douche it may be inserted again. Barnes's dilators are best employed to complete the dilatation.—E. P. DAVIS, in *Medical Standard*.

Dangers of Iodine Applications.—Many drugs and specific poisons have the power when introduced into the system of irritating any or all of the channels of excretion. Iodine is capable of inflaming any of the excretory outlets. Its excretion, when not carried out by the kidneys, gives rise to the interesting group of symptoms known as "iodism;" it has, moreover, actually been detected in the pustules of some forms of iodine rash. For some years I have been on the outlook for iodism where there was distinct evidence of kidney inadequacy. In one case iodine liniment induced albuminuria and signs of advanced kidney disease. My suggestion was that the iodine was absorbed into the circulation by the skin, that it was not excreted by the usual channel, the kidney, and that the severe general subsequent dermatitis was due to an attempt of the skin to throw off the irritant iodine; that the rash was, in fact, caused by excretory irritation.—WALSH, in *The Lancet* (London).

Liquor Tritici.—Because of its stimulating, demulcent properties, and gentle diuretic action, this preparation of *Triticum (Agropyrum) repens* recommends itself in the management of inflamed or congested conditions of mucous membranes, whether of the stomach, bowels, or urinary passages; in renal congestion caused by overwork, cold, alcoholics, or other causes; in cystitis, urethritis, catarrh of the bladder, suppression of urine, painful micturition, and other evils which are the outgrowth of debility of the kidneys and di-

minished secretion. It will doubtless prove, also, a valuable adjunct in the management of gonorrhœal affections.

Liquor tritici may be administered in considerable quantity and at frequent intervals without causing any digestive disturbance.—*Pharmaceutical Notes*.

Pneumonia.—Strychnine is a remedy of very great value in some cases; it promotes cardiac nutrition by acting on the systemic trophic centres, and stimulates tone and vigor in the whole organism at a time when the vital forces are becoming fatigued. It is reputed to increase the formation of leucocytes. Strychnine probably does most good by inducing increased innervation to the digestive and nutritive functions in general. Strychnine should be used when the pulse first shows failing qualities and in doses according to urgency—from one-thirtieth of a grain every six hours, to one-twelfth of a grain every two hours. Its effect is aided by combination with alcohol and digitalis.—DOCTOR L. J. MOYER, in *Pittsburg Medical Review*.

Irritating Vaginal Discharge.—This in the majority of instances comes from the uterus and is caused by the product of utricular glands pathologically altered. The method most advisable in such cases is to first prescribe for the pruritus vulvæ a mixture containing six grains of morphine sulphate and ninety grains of boric acid in six ounces of camphor-water, to be applied locally. This will at once relieve the distressing symptoms resulting from the discharge. Then, by means of periodic intra-uterine injections of a solution composed of equal parts of tincture of iodine and carbolic acid, the diseased utricular glands are to be destroyed, when complete recovery will follow.—*Polyclinic*.

Worm Syrup for Children.—

℞ Santonin, 4 grains.
Liquor senna (sweet), 1½ drachms.
Glycerin, 1 drachm.
Syrup anise, to make 1 ounce.

Rub the santonin to fine powder, mix with glycerin, then add syrup.

This should be provided with a "Shake" label. The dose for a child under one year old is half a drachm; a year old, a drachm; three years old, one and a half drachms; four years old, two drachms; six years old, two and a half drachms; eight years old, three drachms. It should be administered the first thing in the morning, fasting.—*Indian Medical Record*.

Turpentine and Urinary Incontinence.—Essence of turpentine, when taken internally, gives an odor of violets to the urine. This fact has been put to good account by giving the essence in ten-drop doses three times daily to persons afflicted with incontinence of urine. In a short time the disagreeable odor of the secretion is replaced by the characteristic fragrance of the violet, to the great satisfaction of those about the patient. The treatment can be continued without inconvenience for several weeks, and is only contra-indicated in gastric catarrh and nephritis.—*Medical Review.*

Sciatica.—Michalkin by the following establishes progressive diminution of pain, amelioration in sleep, and cessation of the most severe attacks:

- ℞ Alcoholic solution of nitro-glycerin (one-per-cent.), 30 minims.
Tincture capsicum, 80 minims.
Peppermint-water, 3 drachms.

Five drops are given three times a day for three days, and afterward ten drops three times a day.

—*Pacific Medical Journal.*

Chimaphila Umbellata.—The really valuable property of chimaphila is its kindly action in catarrhal states of the bladder. The greater the catarrhal character of the difficulty, the better it will act. If pus and blood be voided, its efficacy is all the more pronounced. It is not the remedy for acute and inflammatory troubles, but for chronic and lingering disorders giving rise to excessive voidings of mucus or muco-pus, offensive or non-offensive in character.—*Eclectic Medical Journal.*

Acute Rheumatism.—For this affection in adults Doctor Mays prescribes:

- Sodium salicylate, 1½ drachms.
Potassium acetate, 1 drachm.
Tincture nux vomica, 4 fluidrachms.
Tincture digitalis, 4 fluidrachms.
Peppermint-water, 4 fluidrachms.
Compound tincture cinchona, to make 4 fluid-ounces.

A teaspoonful every three hours.

—*Polyclinic.*

Fibroids and Thyroid.—Jouin states that he has successfully treated several cases of myoma of the uterus by extract of sheep's thyroid gland. He gives half a gland daily. Of five cases, two, which have been fairly long under treatment, have distinctly improved in health; in one the tumor has dis-

tinctly diminished in size. Menorrhagia is much diminished by this treatment.—*British Medical Journal.*

Calcium Hippurate.—The following is recommended by Constantin Paul in cirrhosis of the liver:

- ℞ Hippuric acid, 375 grains.
Milk of lime, enough to saturate.
Essence of lime, 1½ ounces.
Syrup, 1 pint.

Three or four tablespoonfuls daily.

—*The Practitioner* (London).

Creosote in Pregnancy.—Creosote is very beneficial where the neuroses have set up fermentation in the stomach. In such cases one drop given in a little spirits every hour always gives prompt relief. In cases where there is no ferment in the stomach, it is not so prompt, and gives relief only when administered in very small doses.—J. E. THOMPSON, in *St. Louis Medical Review.*

Ozone in Pertussis.—The *Bulletin Médical* reports twenty-two cases of whooping-cough treated with inhalations of ozone. It acted immediately in diminishing the frequency, the length, and the severity of paroxysms; it shortened the course of the disease remarkably, and the general health improved at once, although the cases treated were all severe.—*Omaha Clinic.*

Asthma.—

- ℞ Iodide of ammonium, 2 drachms.
Fl. ext. grindelia robusta, 30 minims.
Tincture lobelia, 60 minims.
Tincture belladonna, 60 minims.
Syrup wild cherry bark, 2 ounces.
Distilled water, to make 6 ounces.

Dose: A dessertspoonful to tablespoonful every three or four hours.

Grindelia Robusta.—The following combination in fifteen-drop doses, three times daily, is employed by Huchard in nephritis:

- ℞ Tincture grindelia robusta, 1 ounce.
Tincture convallaria majalis, 2½ drachms.
Tincture squill, 1½ drachms.

—*Canadian Medical Review.*

Cicatrices.—Small, comparatively insignificant cicatrices of the face, such as result from variola, pustular acne, etc., are sometimes made less conspicuous by the long-continued ingestion of small doses of some refined oil,

as castor or cottonseed oil. It should be given in from three- to twelve-drop doses three times a day.—*Charlotte Medical Journal*.

Hot Applications in Pneumonia.—Personally I do not favor hot poultices, but it is a domestic practice quite commonly used and sometimes with advantage. I prefer dry cups or the ice-bag, or both.—L. J. MOYER, in *Pittsburg Medical Review*.

Glonoïn.—Nitro-glycerin is an excellent stimulant in syncope and threatening heart failure, while its early and bold use in acute lobar pneumonia may accomplish all that could result from prompt venesection.—S. SOLIS-COHEN.

Administration of Potassium Iodide.—Solis-Cohen administers tincture of belladonna in five-minim doses conjointly with potassium iodide, to prevent the disagreeable catarrhal symptoms often produced by the latter.—*Exchange*.

Bed-sores.—These may be aborted if, as soon as the skin reddens, a solution of nitrate of silver, twenty grains to the ounce, is applied with a camel-hair pencil. This remedy fails with paralytics.—*North American Practitioner*.

Chorea.—

R Sodium salicylate, 2 drachms.
Syrup wintergreen, 1 ounce.
Wintergreen-water, to make 2 ounces.

Twenty drops every hour for six hours, and thirty drops every two hours thereafter.

—*Pediatrics*.

Idiopathic Chlorosis.—If truly idiopathic, and iron is ineffectual, sulphur will produce a marked amelioration. After using sulphur, iron can again be resorted to, and it becomes very beneficial.—*Medical Times*.

Cotton-root Bark.—In doses of twenty to thirty minims of the fluid extract, continued for several days, this remedy is recommended in metrorrhagia, hæmoptysis, hæmaturia, and epistaxis.—*Medical Summary*.

In Throat Troubles.—If the patient cannot open the mouth, diphtheria may almost invariably be excluded and one of the inflammatory non-diphtheritic forms of angina be suspected.

Value of Hydrangea.—Fluid extract, one drop frequently repeated, is valuable for the sharp, cutting pains in the urethra in the passage of water.—*Summary*.

Epilepsy.—Doctor W. H. Pierson treats "with marked relief" with drop doses of fluid extract of tansy, on sugar, four times a day.—*Medical Summary*.

Tartrate of Antimony.—Tartar emetic is a positive oxytocic, and almost usurps the place of the forceps. In minute doses it is still the best expectorant known.

Use of Belladonna.—In any condition of acute blood-stasis of a local character, this drug acts splendidly, quickly equalizing the circulation.—*Exchange*.

Morphinism.—Sodium phosphate in small doses, subcutaneously, with glycerin and water, gradually increased, is recommended.—*Medical Councillor*.

Why Quinine Fails.—Quinine fails to relieve intermittents, oftentimes, because the liver or spleen is gorged, or these or other secretions are at fault.

Influenza.—Poulet highly recommends the use of pilocarpine in large doses in the treatment of the pneumonia of influenza.—*Times and Register*.

Acute Orchitis.—In the early stages give from three to five drops of the tincture of pulsatilla every two hours.—*Medical World*.

Senna.—This drug will be found valuable in the incontinence of urine of locomotor ataxia.—*Medical Times and Register*.

Catarrh.—Chronic catarrh of the mucous membrane is often relieved by alkaline diuretics.—*Medical Standard*.

Pruritus.—Try chloral and camphor diluted with four times their bulk of rose-water.

Singultus.—May frequently be relieved by five-grain doses of cerium oxalate.

Medical Progress.

ANTITOXIN IN DIPHTHERIA.*—Diphtheria in man scarcely ever occurs from a pure infection by the Loeffler bacillus. Almost invariably we find, in addition to the specific diphtheria bacillus, streptococci, staphylococci, etc. The poisonous substances of the latter bacilli are in no way influenced by antitoxin. This fact limits very much the application of Behring's treatment to diphtheria in man. The toxin of Loeffler's microbe causes the cardiac paralysis, the albuminuria, and the paralytic phenomena, and these were to be prevented by the neutralizing effect of antitoxin. If antitoxin is an antidote to the toxin of the Loeffler microbe, cardiac depression, death from cardiac paralysis, albuminuria and post-diphtheritic paralysis should all be prevented by the action of this agent. It was to remedy these manifestations of the disease that Behring gave to the world his antitoxin, and he told us this treatment, to be effective, must be applied early in the disease. To get the maximum effect, toxin and antitoxin must be applied at the same moment and at the same spot.

Armand Ruffer states that if toxin is injected on one side of the body and antitoxin on the other side at the same time, fourteen times as much is required to protect the animal; if there is a delay of an hour, a hundred times as much is required to protect the animal; and if there is a delay of eleven hours, five thousand times as much is required to protect the animal. In diphtheria in man we can never apply the antitoxin at the site of infection or at the moment of infection. A period necessarily intervenes from the time of infection until there are sufficient symptoms to call attention to the illness; and as a result of this there is a great limitation to the application of Behring's remedy to diphtheria in man. Another consideration of prime importance is: if we are to attribute the reported decrease of mortality from diphtheria to the action of a specific, this decrease must be uniform and constant: there must be the same reduction in mortality in all parts of the world where the remedy is applied. For instance, a mortality of eight per cent. in Paris and twenty-eight per cent. in London does not mean that the low mortality in the former city is due to the treatment, but that it is due to a

difference in the character of the epidemic, and that when Paris is visited by an epidemic of the same severity as the one that exists in London it will have the same mortality in spite of the treatment. Again, if there is at work but a single factor, viz., antitoxin, in the reduction of mortality, that reduction must be below the lowest mortality recorded in the natural history of the disease in any part of the world, and it must be steadily maintained below this rate in all parts of the world; otherwise, the variations in mortality may be said to be due to the epidemic character of the disease.

We find recorded the following divergencies in the deaths from diphtheria, owing to the differences in the type of the disease: In New York, in 1884, 1090; in 1887, 2167. In Boston, in 1891, 232; in 1894, 817. In Philadelphia, in 1888, 350; in 1889, 375; in 1892, 1425.

This rule of uniformity of results applies to reports by individual observers. If a hundred physicians report 5000 cases of diphtheria treated with antitoxin, with a mortality of five per cent., and ten physicians report 500 cases treated with antitoxin, with a mortality of fifty per cent., the only logical conclusion is that there was a difference in the character of the cases in the two series, and that when the hundred physicians meet with a series of cases of the same type as those treated by the ten physicians, they, too, will have a mortality of fifty per cent.

The most misleading part of the antitoxin literature is the constantly quoted percentage of mortality. For instance, the mortality from diphtheria in the city of Boston in 1895 was 14.48 per cent.; in 1893, 32.49 per cent.; and yet there were 112 more deaths from diphtheria in the city of Boston in 1895 than there were in 1893. The percentage mortality from diphtheria in the Boston City Hospital in 1893 was 48.44, and in 1895, under antitoxin, 13.21, and yet we find that there were 203 deaths from diphtheria in the Boston City Hospital in 1893, and 207 deaths in 1895.

From the foregoing it is readily seen that the percentage mortality is not only misleading, but absolutely worthless, unless accompanied by the actual number of cases reported and the actual number of deaths; and the report must also include a series of years in order to enable the reader to compare present results with the results in previous years when there was a mild type of the disease. Reporters on the antitoxin treatment have ingeniously compared the years of highest mortality instead of including all years.

At the beginning of the antitoxin treatment

*Abstract of a report of personal investigation of this treatment in the fever hospitals of Europe during the summer of 1895. Read by Doctor Joseph C. Winters before the New York Academy of Medicine, May 21st, 1895

Behring told us that all patients treated on the first day of the disease could be saved; of those coming under treatment on the second day, nearly all; and of those brought under treatment on the third day, the larger part. Behring's words were: "We have it in our hands to reduce the mortality from diphtheria to one-tenth of its former rate." Let us see how this promise has been verified:

At the Willard Parker Hospital, during the first nine months of 1895, the results were as follows: First day, 108 cases, with a mortality of 10.09 per cent.; second day, 130, with a mortality of 25.19 per cent.; and third day, 116, with a mortality of 34.19 per cent..

[The author then cited cases. Commenting on them he said:]

These histories are of cases brought under treatment in the early part of the disease, many of them on the first or second day. The patients had full doses of a supposed specific, and we do not find recorded in the clinical histories one statement which would indicate that this specific modified in any particular a single manifestation of the disease, either in the laryngeal or in the non-laryngeal cases. Not one item in the clinical records can be found to indicate that any one of these patients was in any way benefited by the antitoxin. This is particularly noticeable in the laryngeal cases. Patients brought in without evidence of very marked croup, and after receiving full doses of antitoxin, had to be intubated twelve and twenty-four hours after the hypodermic use of this so-called specific. The clinical records of these cases are totally against the use of antitoxin in the treatment of diphtheria. A careful study of these records will, it seems to me, convince one who is familiar with diphtheria that there are clinical features here recorded which are due to the treatment and not to the disease. These features are referable to the kidneys, nervous centres, temperature, and respiratory organs. The numerous cases quoted from journal literature, showing the injurious effects of antitoxin, are many of them exact counterparts in their clinical course of the Willard Parker Hospital cases here reported, and taken together are confirmatory of the view that antitoxin may prove an immediate fatal poison, even when given in "immunizing" doses; that it may cause nervous phenomena, convulsions, etc.; that it may cause anuria, nephritis, albuminuria, hæmaturia, cardiac collapse, high and uncontrollable temperature, probably due to septic processes, septic pneumonia, subcutaneous hæmorrhages, petechiæ, arthralgia, joint effusions, intestinal hæmorrhages, fœtid diarrhea, etc.

In New York and elsewhere it has been maintained in defense of the serum that the unfortunate ill-effects in the form of high fever and suppuration are due to streptococcus infection; but if this were really the case they should supervene while the morbid affection was in process of evolution in the throat; whereas, they usually supervene after the disappearance of all throat lesions. It is now stated that the bad effects which formerly resulted from the use of antitoxin were due to the amount of serum injected, and that with the use of a more concentrated serum there would be less pneumonia and bad after-effects than formerly. This is a very weak admission. It is an admission that there are bad effects from the serum. One year ago it was asserted most positively by the advocates of this treatment that there were no bad effects—that it was absolutely harmless in doses of any amount.

[The author then cited cases from the private practice of several physicians.]

The mortality in the Willard Parker Hospital for 1894, without antitoxin, was 29.32 per cent.—699 cases with 205 deaths; for 1895, with antitoxin, 778 cases, 190 deaths—a mortality of 24.42 per cent.

Could those cases be eliminated which gave no clinical evidence of diphtheria, the mortality of twenty-four per cent. for 1895 would be greatly increased.

Doctor Ewing made an investigation on fifty-three patients in Willard Parker Hospital with reference to the influence of antitoxin. Fifty of these were injected with antitoxin; nineteen died, a mortality of thirty-eight per cent. His investigation in the hospital was in cases in which there was clinical evidence of diphtheria; and my impression is that this report (thirty-eight per cent. mortality) would fairly well represent the actual mortality of the Willard Parker Hospital at the present time under serum therapy, if patients who have clinical evidence of diphtheria were subjected to this treatment to the exclusion and elimination of those cases which have no clinical data to warrant the diagnosis of diphtheria. In order to determine the result with reference to larger or smaller doses of serum, it was decided in the autumn of 1895 to give to alternate patients as admitted into the hospital doses of serum of 1000, 2000, and 3000 units respectively. There were two classes of cases—mild and severe. In the two series of cases marked "severe," having 2000 and 3000 units respectively as a dose, there were twenty-three patients having 2000 units, of whom seven died (mortality, 30.4 per cent.), and twenty-two having 3000 units, of whom

eleven died (mortality, fifty per cent.). In the two series marked "severe," the cases were probably of nearly equal severity, inasmuch as they were alternate cases as received into the hospital, the mortality being higher with the larger doses of serum in a series of parallel cases. Since these experiments no child has received doses of 3000 units. In this series of experimental dosing there were 94 cases, 24 deaths—mortality, 25.5 per cent. Children under two years in 1894, 163 cases, 84 deaths—mortality, 51.5 per cent.; in 1895 (antitoxin year), 153 cases, 95 deaths—mortality, 62.1 per cent. At the very time of life when diphtheria is most dangerous we have in the Willard Parker Hospital a mortality of 10.6 per cent. greater with antitoxin treatment than without.

Professor J. Lewis Smith has reported thirty-one diphtheria patients treated with antitoxin in the New York Foundling Asylum—twelve on the first day, seventeen on the second or third day, two on the fourth or fifth day; and seventeen died—mortality, 54.8 per cent. Mortality in the New York Foundling Hospital in 1894 (non-antitoxin year), 24 per cent.; in 1895 (antitoxin year), 45.7 per cent.

During the year 1895 there were 606 cases of diphtheria treated in the Municipal Hospital, Philadelphia; 302 received serum; 404 were treated without. No patient was injected who had been ill more than four days at the time of admission. Patients whose cases were considered hopeless did not receive serum treatment; all patients that were considered hopeless when brought to the hospital were placed with the non-serum-treated ones, and some of these died within an hour after admission. The mortality in the 302 cases treated with serum was 28.1 per cent. The mortality in the 404 cases treated without antitoxin was 25.9 per cent. The cases treated with serum had the same local antiseptic treatment and the same internal medication and stimulation that were given to the series of non-serum-treated cases, and yet, with a so-called specific added to the treatment in a far more favorable series of cases, there is a higher death-rate than in those not treated with serum.

In Blegdam Hospital, Copenhagen, fifty-one cases of severe diphtheria were treated with serum, forty-six cases of severe diphtheria without, during the same period; mortality, thirty-three per cent. in both series. The average age of those treated without serum was lower than of those treated with serum. At the time of admission to hospital, complications were more pronounced in the cases treated without serum, the air-passages being

affected in eight cases, while with those treated with serum it occurred only three times. Severe complications of the kidneys (after admission to the hospital) were observed only in those treated with serum. The serum was used earlier in the fatal cases than in the cases which ended in recovery. That is, the day of the first injection was, on an average, earlier in the fatal cases than in the successful cases. "From our experiments we cannot see any favorable action of the serum. On the other hand, we observe more severe hæmorrhages, albuminuria, nephritis, toxic anuria, fever, eruptions, etc., in those treated with serum." The serum was also used in croup cases complicated by severe diphtheria, and in mild cases of croup for the purpose of preventing stenosis. The mortality in all cases with and without operation was twenty-eight per cent., and for cases of operation forty per cent. But during this same period there were eighty-seven patients with croup that were not injected; the mortality in these for all cases was twenty-five per cent., and for cases of operation thirty-eight per cent.—therefore, lower than in those treated with serum. Severe diphtheria complicated with croup did very badly with this treatment. All such patients died, and the good result in milder cases is explained by the type of the epidemic.

The report of the Medical Superintendents of the Metropolitan Asylums Board (London), 1895, embraces 2182 cases of diphtheria treated with antitoxin, with 615 deaths—mortality, 28.1 per cent. Compare this report with that of 1894, when 3042 cases of diphtheria were treated in all the hospitals of the Board without antitoxin, with 902 deaths—mortality, 29.6 per cent. In the Northwestern and Southwestern Fever Hospitals of London there were, in 1892-'93-'94, 4672 cases, with 1187 deaths—25.4 per cent.; in all the hospitals in 1895 (antitoxin), 2182 cases, with 615 deaths—28.1 per cent.

There were 225 tracheotomy cases in all the hospitals of the Metropolitan Asylums Board in 1895, treated with antitoxin, with 113 deaths—mortality, 50.2 per cent. During the year there were thirty tracheotomy patients in these same hospitals that did not receive antitoxin; twelve died—mortality, 40 per cent., 10.2 per cent. lower without antitoxin than in those treated with antitoxin. This is just the result to be expected when a depressant like antitoxin is added to the treatment of cases of diphtheria so serious as to require tracheotomy. It cannot be said that the tracheotomy cases which were not treated with antitoxin were mild cases. The tracheotomy cases treated with and without anti-

toxin during the year, 1895 were cases of the same degree, and offer a very good field for comparison of results.

At the Northwestern Hospital, during 1892-'93-'94, there were 215 tracheotomy cases, with 124 deaths—mortality, 57.6 per cent. During 1895 there were twenty-eight tracheotomy cases in this hospital treated with antitoxin, with eighteen deaths—mortality, 64.2 per cent. During the year 1895 there were four tracheotomy cases in the Northwestern Hospital treated without antitoxin; all the patients recovered. Nothing could be more conclusive of the depressing and dangerous effect of the antitoxin in that severe form of diphtheria of the larynx and trachea which necessitates tracheotomy than the records of the Northwestern Fever Hospital for the years 1892-'93-'94-'95.

About the only contention made for antitoxin at the present time by its advocates is that it has a favorable influence in laryngeal diphtheria; that it relieves stenosis; that it obviates the necessity for operative interference; that the mortality is lower in cases without operation and cases with operation treated with serum; that the tube can be removed earlier when an operation becomes necessary. If antitoxin does not cause a "melting away" of the membrane, as was at first stated, and does not lessen the duration of the membrane in the visible portions of the throat, what reason have we for supposing that it influences the duration of the membranes in the larynx? The mortality in the Willard Parker Hospital for the first nine months of 1895 in intubation cases treated with antitoxin was 68 per cent., and for the last quarter 76.9 per cent.; during the first quarter of 1896, 67.7 per cent.; in April, 72.7 per cent.; May, 75 per cent. In the Municipal Hospital, Philadelphia, there were, in seventy-one intubation cases treated with serum, in 1895, forty deaths—mortality, 56.3 per cent. Wiederhofer gives a mortality of 43 per cent. in intubation cases before the serum treatment was known.

Von Ranke, in 326 intubation cases, reports a mortality of 57.4 per cent. before the serum treatment; Meisenbach, 57 per cent. in tracheotomy cases in the Philadelphia Children's Hospital, before the serum treatment.

In Strassburg, in 397 tracheotomy cases (1891-'94) the mortality was 44.3 per cent.; in Geneva (1872-'88), 49 per cent.; in the University College Hospital (London), in tracheotomy cases in 1894 (non-antitoxin year), 47 per cent.

Is not the very high mortality in intubation cases treated with antitoxin in the Willard

Parker Hospital, when compared with the results in intubation cases without antitoxin in the Municipal Hospital, Philadelphia, and the intubation cases reported by Wiederhofer and Von Ranke before serum treatment, and in tracheotomy cases in Philadelphia and in all parts of the world, before serum treatment, a most positive warning against the use of this treatment in this serious and dangerous form of diphtheria? Why is it that antitoxin has to-day the hold on the profession which it has? The fame of antitoxin is largely due to the influence of two hospitals—the Empress Frederick Hospital, Berlin, and the Hospital for Sick Children in Paris. We find that the Empress Frederick Hospital received 875 cases of diphtheria during fourteen and a half months of serum treatment, and that there had been received into the same hospital during the previous four years only 1063 cases of diphtheria. It is owing to this increase in the number of cases of diphtheria in the various hospitals, and the increase in the number of cases reported as diphtheria, as the result of the bacteriological diagnosis in various cities of the world, that antitoxin is reputed to reduce the death-rate of diphtheria. A careful examination of the subject reveals the fact that the actual number of deaths has not been lessened, but, as stated at the outset of this article, the fame of antitoxin rests on the reported decreased percentage mortality. We find, on examination of the reports from various cities and hospitals, just what was pointed out with reference to the city of Boston as a whole and of the Boston City Hospital, that the actual number of deaths has not been lessened.—*Medical Record*.

PATHOGNOMONIC SIGN OF LICHEN PLANUS.
—The difficulty of making a diagnosis of this affection has been recognized by dermatologists, confusion often arising in cases which are not typical examples of the disease. Wickham has recently called attention to some signs which he looks upon as pathognomonic, viz., the striæ and grayish points which are seen on the top of the papule. The condition is seen upon the older papules, and the author has not determined if it exists from the beginning of the lesion and only becomes visible later, or if it appears during the course of the lesion. When the papules merge into plaques, these signs are more marked. He concludes that it is a veritable pathognomonic sign, not always present, but, when found, permitting a positive diagnosis to be made.—*Annals of Dermatology*.

The Medical Age.

VOL. XIV.

DETROIT, JULY 25th, 1896.

No. 14.

Original Articles.

OCCIPITO-POSTERIOR POSITIONS.*

BY ALBERT A. MACDONALD, M.D.

On this side of the Atlantic so much has been written on this subject during the past few years, and so many different opinions have been expressed, that I have been impelled to add my experience and testimony as to the efficacy of a plan of treatment which, though by no means new, has not been carried out with sufficient accuracy in many of the recorded cases.

At the very outset there is a decided variance of opinion as to the frequency of the cases—some writers bringing statistics to their aid in the endeavor to show that the position is rare, whilst again others seem to prove the reverse. I believe there is a want of closeness of observation in at least some instances, for it seems that due credit is not given to Nature for the cases in which turning takes place during descent of the head so that what started as an occipito-posterior position ends as an occipito-anterior. However this may be, the position under consideration occurs with sufficient frequency to keep us always on our guard, and is of importance enough to warrant us in putting forth all our energies in its treatment.

With regard to the gravity of these cases, though in Sir James Y. Simpson's work in 1856 he said "Occipito-posterior positions seem on the whole to require somewhat greater time than occipito-anterior positions; the difference, however, is so inconsiderable as not to invalidate in any the slightest degree what I have already stated regarding the perfect safety and facility with which unaided

Nature is capable of finishing the labor in this common class of cases," there are many of the present day who think differently. It may be that our patients are not so strong, or so tolerant of pain, or it may be that as we become more familiar with the refinements of our art we are less able to wait calmly, and see our patients suffer, when we know that relief can be quickly and safely given.

In an article in the March 1895 number of the *Buffalo Medical and Surgical Journal*, Penrose is quoted as saying: "If I were to be asked what one obstetric difficulty in my experience had caused most maternal and foetal deaths, what one had caused most maternal and foetal accidents, not necessarily fatal—accidents, however making the rest of life worthless, or still worse than worthless, a tragedy—I think I would say occipito-posterior positions, where the occiput had rotated into the hollow of the sacrum, and which had been improperly treated." Strong words are these, and yet he is not alone in his opinion. Only quite recently (September, 1895)* a case was reported by Doctor A. F. Currier where both mother and child died from this position, though this case indicates very well the mode of treatment as taught and practiced by many men of the present day—namely, to endeavor to rectify the malposition by manual interference; this failing, apply the forceps and pull hard and long. Neither in the report itself nor in the discussion of it which is found in the Transactions of the New York Obstetrical Society, is there one word about anæsthetics. At this distance, though I am free to admit that it is more easy for us to criticise the acts of others than to be always right ourselves, still I feel that at least some mention should have been made of anæsthesia as a helping agent in

* Read before the Ontario Medical Association, at Windsor, June 5th, 1896.

* *American Journal of Obstetrics and Diseases of Women and Children*, page 423.

these cases as well as in many others of malposition or difficulty in delivery.

Herman in his recent work on "Difficult Labor" divides occipito-posterior positions into easy and difficult ones. The former he terms bregmato-cotyloid, and in them the head is well flexed, so that the bregma, or anterior fontanelle, lies opposite the acetabulum—"the occiput comes down, meets the resistance of the pelvic floor, and by this resistance is pushed forward, so that it turns opposite the sacro-iliac synchondrosis under the pubic arch. The abnormal position with the occiput behind is changed into a normal one with the occiput in front. When this rotation has taken place the labor ends just as if the occiput had been in front from the beginning, and no special assistance is called for. Fortunately the majority of cases of vertex presentation with the occiput behind end in this way."

In the other group of cases the head is not well flexed, and then, instead of the anterior fontanelle being opposite the acetabulum, the frontal eminence is opposed to it. These cases are called fronto-cotyloid.

It is not within the scope of this paper to take up the causes of imperfect flexion of the head in these cases. I may merely mention that the chief causes are the relations of the axis of the uterus and of the pelvic brim, and that the greatest transverse diameter of the head is behind the centre—that is to say, the bi-parietal diameter is behind the oblique diameter of the brim in a part where there is less room for it than would be the case in an occipito-anterior position. So if the child's head is of fair size it does not come down so readily, flexion is retarded, or even extension may be favored, and labor is rendered difficult.

There are other causes, such as a very large or very small head, excessive liquor amnii, or deformity of the pelvis, but those above mentioned are the most common in normal-shaped pelvises—and also they are the ones that we should fully understand in order the more readily to apply successfully the earliest and best means of giving relief.

Now with regard to treatment of these cases. Let us first make an accurate diagnosis; and here permit me to say that I find it impossible in some cases to make an accu-

rate diagnosis by the fingers alone, or even by the fingers on the head of the child aided by palpation with the other hand outside. I know that some obstetricians claim that diagnosis in these cases is easy, but for my part I prefer to be sure, and if there is any obscurity I give chloroform, and after having the parturient canal thoroughly cleared, the aseptic hand is anointed and passed gently into the vagina and even into the uterus if necessary, when not only the exact position is noted but also the condition of the cervix and other parts of the parturient canal. If then the occiput is found towards the back, the malposition can be rectified by grasping the head and turning it toward the front, converting the position into O. L. A. or O. R. A. as the case may be. The body of the child may be rotated also if necessary, but this may not be required in every case as the amount of rotation of the head is not great. This all sounds very easy, and indeed it is often as easy as it seems if due judgment is used as to the time of interference. If the malposition is suspected, and if the membranes are left intact until we are ready, the moment the patient is completely under the anæsthetic the hand is inserted, the membranes ruptured, the hand pushed on at once before the liquor amnii has had time to flow away, and the head may be grasped and turned. There are cases where the parts are dilated and the waters have escaped. Perhaps our assistance has not been sought until the head has become jammed into the pelvis by fierce pains or by ineffectual efforts at extraction with forceps in the hands of unskilled attendants, for we are forced to admit that such exist though fortunately they are rare. Even where such unfavorable conditions exist, if we take off all pressure from above by the full use of chloroform—which, of all anæsthetics, I prefer in obstetric cases—the head and in fact the whole body of the child may be pushed forward and rotated into a favorable position, and held there whilst the forceps are applied by pushing a blade along the palmar side of the hand—then the forceps are correctly applied and locked without undue haste or delay. By way of illustration I may be allowed to quote from my note book short accounts of my O.L.P. cases in private practice since January 1st, 1896.

February 19th, 1896. Mrs. H——, aged 27; normal pelvis; second pregnancy. Had a considerable amount of mitral stenosis, and during the period of gestation her suffering from palpitation, cough, shortness of breath and congestion of the lungs gave her great distress and caused much anxiety to her medical attendant. I need say little of this case. The chloroform was administered by Doctor Allen Baines. It acted like a charm, steadying the heart's action and giving fullness and strength to the pulse. The presentation was occiput to the left posterior, with full flexion. As soon as anæsthesia was complete the difficulty was over and the head could be turned in any direction.

February 20th, 1896. Mrs. O——; multipara; healthy. Some years ago she had a ruptured perineum and rectocele, which I repaired, and the repair stood the test of this labor. I saw her during the early part of the night of the 19th, but at the time could not be sure of the presentation. Labor was tedious. At 8 A.M., the os being dilated, I found an O. L. P. presentation. I again called upon Doctor A. Baines to verify the position and to give the chloroform. Under complete anæsthesia I passed my hand into the uterus, pushed the head above the brim, gave it a quarter turn into the O. L. A. position, producing flexion at the same time and pressing the shoulder with one hand outside and one within, so that the shoulders would correspond to the new position of the head. Forceps being applied, delivery was easy and rapid. Puerperium normal.

Mrs. T——; multipara; aged 33; pelvis narrow in front. Had always had difficult labors, but anterior presentations of the occiput until this time. Labor pains commenced April 24th, and lasted off and on until the 27th, when I found the os dilated, membranes ruptured, presentation O. L. P. above the brim and with no tendency to engage. Called Doctor J. Lesslie, who gave chloroform and also examined to verify my diagnosis of the presentation. Under complete anæsthesia I pushed the head up clear of the brim, turned it occiput to the left front, flexed the head, and rotated the body of the child on its axis so as to correspond to the new position of the head. Without withdrawing the hand I passed the forceps along its palmar sur-

face, in this way being sure that the head did not rotate back to its old position. Delivery was easy and rapid. Recovery uneventful.

May 12th, 1896. Mrs. O——; primipara; attended by Doctor J. Russell, who had been with her about twelve or fourteen hours. On being called I found the os dilated, membranes intact—presentation bregmato-cotyloid. In this case it is possible that the head might have turned itself if the woman could have borne the pains long enough; but as the parturient canal was large enough, and the strength of the patient was nearly exhausted, I advised immediate delivery. On complete anæsthesia being produced, I ruptured the membranes, pushing the hand at once up, giving a quarter turn to the head, and producing flexion. The body of the child did not rotate completely. When pulling with the forceps I found that the head would not come down readily; it had rotated back to its faulty position. I removed the forceps, introduced the hand, turned the head again to the O. L. A. position, made sure that the body followed completely to the new position, reapplied the forceps, and delivered without any undue force. This case illustrates very well the facility of delivery in the O. L. A. position and the difficulty of the O. L. P.

The cases above cited are enough to illustrate the method of manipulation which I consider to be the best. And again, whilst thanking you for listening to my remarks, I remind you that nothing new is claimed. You will find everything I have said in the various recent journals, and indeed very much of it in some of the old and discarded obstetrical works. The chief point which I wish to bring clearly forward is that where everything is aseptic there is no danger in introducing the hand and in pushing up and turning the head of the child to a new position and rotating the body of the child upon its axis—provided that complete relaxation has been produced by anæsthesia.

By early diagnosis and by treating our cases on this plan with care and intelligence, not only will much time and suffering be saved, but occipito-posterior positions in labor will be robbed of much of their terror.

Toronto, Ontario.

ABDOMINAL SECTION FOR DIAGNOSTIC PURPOSES ONLY.*

BY J. H. CARSTENS, M.D.

When Batty in America, Hegar in Germany, and Lawson Tait in England, at almost the same time, twenty-four years ago, removed slightly diseased ovaries and tubes for the purpose of bringing on the menopause and relieving dysmenorrhœa, they had little idea of the immense field they opened in the line of abdominal surgery. It took fifty years for the profession to accept the idea that it was necessary to remove all ovarian tumors. Progress was slow in the medical profession, as everywhere else, during the first half of the century. Now, at the *fin-de-siècle*, progress in every direction is rapid. The pioneer work of the three men mentioned above, in pelvic surgery, has opened up the whole abdomen and all the organs within it and adjacent to it, to operative interference. The surgeon who operated on female pelvic organs soon found that he was obliged to do other things—that he would tear the bladder, and would have to sew it up; there would be a rent made in the intestine, which had to be carefully sutured. Being human he often made mistakes, and what he thought was an ovarian tumor sometimes proved to be a floating and diseased kidney, which he would thereupon remove. He sometimes found that instead of a fibroid tumor of the uterus he had to deal with a hypertrophied spleen. And thus from a pelvic surgeon he became a general abdominal surgeon. With a courage gained by experience and the consciousness that he could do all kinds of operations and work within the peritoneum with comparatively little danger to the patient, he was induced to operate on the different abdominal organs for different morbid conditions.

The ground has been thoroughly gone over, and many of the mooted points have been definitely settled, and the few remaining ones will soon be cleared up. Abdominal surgery pushes forward and is not content with simply tackling the *palpable* morbid conditions within the abdomen, but *offers its assistance to the general practitioner for diagnostic purposes only*. There are many

obscure, complicated cases which do not yield to ordinary medication; in fact, the patient becomes steadily worse. In this class of cases it seems to me that abdominal surgery offers hope to the patient: first, for the purpose of an absolutely correct diagnosis; and secondly, if the diagnosis shows that the case can be remedied by surgical interference, this can take place at the same time. This naturally refers, especially, to chronic cases; still in a very limited number of acute cases abdominal section is also indicated.

It is only after a thorough consultation, and watching the patient for a certain length of time, that operative procedures are justifiable. A correct diagnosis by exclusion must be made. Continual vomiting and cholera infantum or cholera morbus must not rashly be considered proper cases for abdominal section. But acute cases, coming on suddenly with vomiting, obstruction of the bowels, and with or without elevation of the temperature, with a progressively increasing rapid pulse, directly point to some serious lesion: ulceration or perforation of the intestines or stomach; or invagination, knotting, or hernias, which cannot be easily detected by external palpation or digital and rectal examination. These kinds of cases, as I say, *after proper consultation*—that is, with two or three physicians—not only justify, but, I think, clearly demand operative interference.

When it comes to chronic cases, here will be the largest field. It is easy to exclude, with the present knowledge and instruments of precision at our command, many of the diseases which formerly could not be recognized. Still there always remain a certain number of cases which do not yield to any kind of treatment, and the patient can be seen to gradually become weaker and weaker and will ultimately die if something is not done to relieve him. Renal calculi sometimes cause very little trouble, but gradually, as they grow larger, cause much disturbance and still are not suspected. Gall-stones will accumulate in large numbers and become of large size and never cause biliary colic or jaundice, while the patient's health is gradually being undermined. Adhesions of the intestines, fibrinous bands or adhesions of

* Read before the Michigan State Medical Society.

the omentum, with partial constriction of the bowel, will sometimes cause great disturbance and distress, and still are very difficult to diagnose.

Some years ago a prominent citizen of a small city in the State called on me for diagnosis of some obscure stomach trouble. He had been to the medical centres of Europe and consulted the ablest physicians. He had been saturated with the waters of Carlsbad and Kissingen. The acid diathesis of his blood had been neutralized by Vichy, and the waters of Cheltenham had permeated every blood-vessel of his body. He had inhaled the balmy breezes of the Mediterranean, and climbed the Alps of Switzerland, and still he became worse, weaker and weaker. He was told he had nervous dyspepsia, or destruction of the gastric tubules. I carefully examined him and could find absolutely nothing in the way of swelling, growths, or tumors, and with the *occasional* spells of vomiting I did not suspect that there might be a constriction. I told him he was not in my line, and that he should return to the general practitioner. He went abroad again, but returned home and finally died. The post-mortem showed a plain non-malignant stricture of the pyloric end of the stomach. If I had had the courage at that time to suggest an exploratory operation, he would have grasped at it like a drowning man does at a straw; I could have found the trouble, and by a resection or gastro-enterostomy could have relieved him, and I verily believe he would have been living to-day and the picture of health. I was a coward. I was afraid of being accused of recklessness, of operating without any justification. I could relate case after case, from my former experience as a general practitioner, where a diagnosis could have been made and the right kind of treatment instituted if an exploratory abdominal section had been made.

Still, I even now make this suggestion tremblingly, because I know there are many men without knowledge and experience who are always ready to jump in and operate unnecessarily and recklessly, who will rush in "where angels fear to tread," without conscience and without acquaintance with the niceties of differential diagnosis. They do not wait for careful observation and re-

peated consultation—preliminaries which alone would justify any such operation. Those of us who limit our practice to abdominal surgery, and who have more or less success, bear a grave responsibility. If we report a series of cases with a small mortality, we show the general practitioner that we can do these operations with little danger to life; or, if they see us operate and perform an abdominal section or a vaginal hysterectomy in five, ten, or fifteen minutes, many will think that abdominal surgery is, as my friend down in Indiana says, "as easy as rolling off a log." Others will recklessly operate without having had any experience, perhaps having seen a number of operations performed at a distance, but ignorant of the trials, troubles and anxieties, and the gradual picking up, little by little, of the different points which have made abdominal surgery a success.

If the abdominal surgeon discourages indiscriminate coeliotomy by every "Tom, Dick, and Harry," he is accused of being jealous and envious—afraid that some young man will develop and become an abdominal surgeon. So far as I know, this is not true. All the abdominal surgeons I know have helped and assisted young men to learn the details of abdominal surgery and to become abdominal surgeons. But these young men had had considerable experience; they had assisted at a great many operations; they were going to make this their lifework; they were going to locate in medical centres where they could expect to get many abdominal sections in their future career. But for a man in some out-of-the-way place, without facilities, to do an abdominal section, is, as a rule, reckless. It may be a case of emergency where the patient cannot be moved and will die if prompt help is not furnished; but ordinarily, when the patient can be moved, he should be sent to a well equipped hospital where every facility is at hand. Looked at from the standpoint of common filthy lucre, if the general physician or surgeon could do a laparotomy or two a year, he would get very little pay for it. He must buy, always, a number of instruments. His reputation is not much enhanced if the patient recovers, and it will be very much injured if the patient should die. He has, as a rule, no proper assistance; no good nurse; no sterilized water, towels, cloth-

ing, etc. In fact, almost everything is against him, and very little in his favor.

Every one who wants to do an abdominal section, or who lives in some centre where he can at least expect to do quite a few every year, should thoroughly prepare himself so that he will be competent to treat all the complications met with. What seems the simplest case sometimes turns out to be the most severe and difficult, so that every one should be thoroughly prepared to meet every kind of emergency—and that means a good many instruments of all kinds.

As I wrote to a doctor some time ago:

For you to attempt such an operation without any training whatever, and without even knowing what the trouble really is, I would consider reckless; in fact, it would be unjust to the patient. You have no right to trifle with human life in that manner, no matter if the patient trusts you and the family will not blame you if she dies. The question before you is: Are you doing the highest ultimate good to the patient, as you have sworn to do by the Hippocratic oath? Do you think that you can operate as well as some other persons who have had more experience? I think you would not say yes. You must admit that such a patient has 500 per cent. more chance to live if she goes to a hospital and is operated on by an experienced man, than if you operate on her without the facilities that a hospital offers.

You will allow this digression. I simply wanted to make the point that if an abdominal surgeon talks about the difficulties of these operations and discourages others, he is accused of being afraid of competitors; while, if he emphatically insists on the necessity of even an exploratory operation in some cases, and that it can be done without danger, he is liable to spur on a lot of ambitious but inexperienced men who will recklessly proceed to open the abdomen for the most trivial causes. Hence it is very difficult, it seems to me, to draw the exact line.

I want to call the attention of the general practitioners to the fact that there are frequent cases of diseases or disturbances of the stomach, liver, spleen, kidneys, and so on, which cannot be diagnosed except by an exploratory abdominal section, and that this can be done with almost no danger to life, if done in a hospital well equipped for performing cœliotomies. Only in exceptional cases is it justifiable to do such operations at the patient's home, because, when an exploratory

operation is made, every facility should be at hand and the surgeon should be thoroughly prepared to do any operation which may be shown to be necessary by the exploratory cœliotomy. Otherwise the patient may be compelled to submit a second time to the danger of the anæsthetic and the other accidents so prone to occur in even the simplest operation.

In conclusion of this paper, I will say:

1st. That in rare acute cases, with symptoms dangerous to life, indicating disturbances around the gall-bladder, pylorus, and cæcum, an exploratory operation should be promptly performed:

2d. In chronic, obscure cases where the symptoms point to disease of some of the organs within the peritoneum, an exploratory operation should not be delayed too long:

3d. In either acute or chronic cases, a consultation or a number of them should be held and at least an inferential diagnosis made:

4th. Such exploratory operations should always be performed in a well equipped hospital, and the surgeon should have at hand every means to perform any kind of abdominal operation if the case should demand one.

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LOCAL TREATMENT OF THE EYE.

BY DUDLEY S. REYNOLDS, A.M., M.D.

The local treatment of the eye is as much in need of reform and readjustment as any other department of surgery, perhaps more so, for there has been little change in prevailing customs for nearly a hundred years. It was the proud boast of Ophthalmology that it was the first of all special departments of practice to attain the distinction of approximately scientific accuracy. Surely the anatomy and histology of the eye were advanced to a higher plane than that occupied by any of the other organs of the body, for, in 1868, Metz of Cleveland published his treatise on these subjects, which to-day stands quite in advance of any other work of like character, though it is now out of print.

Ophthalmoscopy has advanced to a degree of perfection which leaves little to be desired. The refracting properties of the eye are gen-

erally fairly well understood by the profession; the methods of determining and correcting the errors of refraction and muscular deficiencies are likewise quite abreast of the progressive spirit which has done so much for humanity in the field of general surgery. But there seems a woful lack of the proper spirit of progress in the study of local ocular therapeutics, and I fear there is just ground for the suspicion that the pathologist has failed to awaken in the minds of ophthalmic surgeons the same spirit of emulation which the gynæcologist, the neurologist, and even the student of general medicine have displayed in their several fields of labor. Fuchs says:

Follicular catarrh is characterized by the presence of follicles. These are small round granules of about the size of a pin's head, which lie in the region of the conjunctiva. They are of a pale, translucent aspect, and puff up the conjunctiva in the form of small eminences. Either a few follicles only, or many, are present; in the latter case they are ordinarily arranged in rows like the pearls of a rosary. Microscopic examination shows that the follicles, as well as the so-called trachoma granules, consist of a circumscribed accumulation of adenoid tissue. Follicles are most frequently observed in youth, and can accompany both acute and chronic catarrh. Their significance consists in the fact that, when they are present, the malady is a protracted one. In chronic cases, the follicles remain stationary in the conjunctiva for a series of years. The follicles ultimately disappear without leaving a trace behind; the disease, therefore, in spite of its long duration, has a good prognosis, in that it is cured without leaving any sequelæ.

Noyes remarks,* speaking of follicular trachoma or folliculosis:

The conditions vary in intensity, but it is not rare to meet a case of prodigious redundancy of follicular masses of which no serious complaint had been made, and accompanied by no important symptoms.

We meet with extremely different degrees of chronic or mixed trachoma, the characteristic of all being the presence in varying quantities at some period of their duration of the trachoma follicles, or, as it is also called, of lymphoid infiltration.

Almost all authorities have bent their attention upon the trachoma follicles and their various appearances as typical elements of the disease, and have classified cases accordingly.

If follicle is the diminutive of *follis* (a sac), folliculosis must mean a condition in which

many small sacs are present. In anatomy, a mucous follicle is a little pit or sac which opens on the surface of a mucous membrane. Folliculitis would necessarily indicate inflammation of one or more follicles, without including the interfollicular spaces of the membrane. Now no one, as far as I am informed, pretends to be able to cauterize a follicle without including the interfollicular tissues.

If we study the mode of development of a gonorrhœal infection, we shall observe a freshly discharged mucous corpuscle (which is always a young epithelial cell) beginning to swell from multiplication of the invading cocci. Presently the cell ruptures, turning loose a swarm of cocci to invade and destroy all the contiguous mucous corpuscles on the surface; and then the surface epithelium, including the contents of all the exposed mucous follicles, is invaded, and the disease is at its acme.

Is it rational practice to attempt the arrest of this series of invasive processes by the application of anything which will either destroy the surface epithelium or otherwise lower the vitality of the membrane? It seems to me that we ought to get out of the nitrate-of-silver path of destruction, and quit furnishing the aid of cauterization to the less destructive processes of a surface inflammation. The so-called typical scar of blepharitis papillaris is found along the free border of the upper lid, corresponding to the point of application of the caustic used, and could not be the result of any especially characteristic localization of the purulent inflammation which almost always precedes the development of hypertrophied papillæ. There are neither more follicles in this portion, nor more papillæ; *per contra*, there are more of both in the posterior portions of the palpebral conjunctiva.

It is a common practice to prescribe iced compresses to the closed lids in advancing purulent conjunctivitis, but this must necessarily cause retention of pus and give undue facility for invasion of the follicles by prolonged contact. It must likewise endanger the nutrition of the part, in which there is already a dilated state of the blood-vessels, and may create stasis, leading to phlegmon, so familiar to surgeons who have used ice to inflamed surfaces in other situations. Com-

* Second revised edition, 1894, page 341 *et seq.*

presses with or without ice may reduce the quantity of pus discharged, but they cause corresponding increase of depth of invasion. I have often seen cases of gonorrhœal ophthalmia in which applications of ice brought on increased chemosis, and interstitial corneal infection through invasion of the nutrient channels (juice canals).

If both eyes are already infected, it may frequently happen that one is more seriously affected than its fellow. The treatment of the two should be different, accordingly, and every care taken to prevent matter from one eye getting into the other. If it is decided to use mercury bichloride and ammonium or sodium chloride, by irrigation—which promises the best results in many cases—the irrigation of the eye discharging the most must be repeated oftener than that of the other eye. After each irrigation it is best to anoint the lashes to prevent agglutination. If the disease is in a chronic state, with hypertrophied papillæ, much may be accomplished by active stimulation, provided the stimulant is not so caustic as to char and destroy surface epithelium, nor so penetrating and prolonged in action as to intensify the inflammation. Both copper sulphate and silver nitrate are objectionable in the strength and form generally used; the former dries and destroys surface epithelium, and is too prolonged in action to be useful in most cases. A crayon of ammonium muriate is powerfully stimulating and does not coagulate mucus, and is of very brief action and much greater efficiency, without entailing any danger to contiguous tissues. Silver nitrate, in substance or in strong solution, must be neutralized with sodium-chloride solution, which precipitates the insoluble chloride of silver. Now, one cannot see the retained particles of chloride of silver in many of the folds and follicles of the conjunctiva, where they must give rise to prolonged mechanical irritation; and it is always a bad plan to reduce the vitality, and much worse to destroy even the smallest portion of the protoplasm, of inflamed tissues. It is far more rational to employ such agencies, in the advancing stages of purulent infection, as will constantly facilitate the removal of accumulating infected excretions, and so sterilize the affected surfaces as to limit the growth of the infecting organism, with as little irri-

tation of the contiguous parts as possible. Sodium chloride, sodium borate and potassium nitrate are actively antiseptic, almost entirely devoid of irritating properties when frequently applied to mucous surfaces, are alkaline, do not coagulate albuminous substances, and tend rather to dissolve inflammatory exudates; abundant experience attests their value.

When a foreign body is allowed to remain a few hours imbedded in the conjunctival or corneal epithelium, it produces injection of the vessels and reddens the appearance of the eye, besides provoking great increase of lacrymation, and photophobia. In such a case atropine drops can do no good, but may add so much to the irritation of the ciliary nerves by subjecting them to increased pressure of the dilated blood-tubes accompanying them, and thus provoke dangerous cyclitis, leading in some instances to what is known as traumatic glaucoma, from which the eye may never entirely recover.

Boric acid will protect abraded surfaces against the ordinary dangers of infection, cocaine will allay local irritation; and so these may be appropriately prescribed in every case of pain in the eye from foreign bodies. If the eye be closed in such a case, the foreign body will be aided in its destructive work by the pressure used to keep the lids closed, and any infecting organisms that may chance to be present are allowed undisturbed and prolonged contact with abrasions, where colonization may easily take place.

The certainty with which lead-acetate lotions will precipitate in all abrasions of the cornea, creating permanent opacities, excludes all forms of lead from ocular therapeutics.

The yellow oxide of mercury is valuable as a local application in nearly all forms of ulceration or abrasion of the cornea and conjunctiva, while calomel is both insoluble and of uncertain value. Moreover, the yellow oxide is amorphous and readily soluble in the tears; but if employed in ointment form, the excipient should be petrolatum, which melts slowly, allowing prolonged retention of the particles of the mercury, and preventing the accumulation of the mercury in masses, where too severe activity might be exercised through the solvent action of the tears.

The tension of the eyeball should be noted in every case of injury, and when it is found even slightly increased a solution of eserine may be instilled and a saline purgative administered; and if the increased tension be accompanied by sense of pain on pressure upon the globe, it is best to begin with ammonium or sodium salicylate at once,—the nauseous effects of these drugs may generally be prevented by dissolving in equal parts of camphor- and mint-water. No mydriatic drug should be applied in such a case. Hot ablutions are often of great value in cases of irritation of the iris and ciliary body, whether due to constitutional or to local causes.

In cases of contusion, and of blood-extravasation from sneezing, lifting heavy bodies, or other cause of rupture of small blood-tubes, a solution of pilocarpine muriate promotes rapid absorption of effused fluids; this may be instilled into the eye or injected under the retro-tarsal conjunctiva in doses too small to perceptibly affect the heart.

Chicago, Illinois.

SOME THINGS FOUND HELPFUL IN OBSTETRICS.*

BY C. S. COPE, M.D.

I offer merely a few simple suggestions that may prove helpful; nothing great or wonderful, just a few hints. They may not be new, but to some may prove a revelation.

“If we cannot on the ocean
Sail among the swiftest fleet,
Rocking on the highest billows,
Laughing at the storms we meet,

We may stand among the sailors
Anchored yet within the bay;
We can lend a hand to help them
As they launch their boats away.”

And so while we of the rank and file of the profession may not be able to do any great things, yet by careful attention to the little ones that come to us, we may make more perfect the noble calling to which our lives are consecrated.

You have doubtless often been disgusted, and your patient mortified, by having the contents of the lower bowel suddenly ejected

into the bed at a very critical time during confinement. The various home-made devices have always proved insufficient at such times, and the person of the lying-in woman and the hands of the accoucheur become soiled at a critical moment. Now the remedy I suggest for this may not meet with general approval, and on certain grounds it may be loudly denounced, but I beg suspension of judgment until it has been given a fair trial. My custom is to place under the hips of the parturient woman, after the discharges appear and labor is fairly begun, three or four newspapers, evenly spread, one overlying the other smoothly. I have at hand a large pile of newspapers, some cut in halves and fourths, that I use as napkins and absorbents for profuse discharges, and as fast as any are soiled they are taken away and burned; if there is a large amount of amniotic liquor, or excessive hæmorrhage, the bed and floor are well protected by newspapers. In this way I have saved many a bed and nice carpet from injury or destruction; the bedding and floor are kept free from discharge; there are no heavy quilts or pads to remove and lie in back kitchens and woodsheds waiting for a convenient wash day; no bad smells found in the lying-in room; and the patient has a clean bed to lie in, and does not require to be moved to clean up afterwards—a convenience greatly to be desired in some cases. The satisfaction derived from such procedure will be great, and win the everlasting gratitude of the attendants when they see the usual arduous washing after confinement entirely or largely prevented.

Such objections as may occur will be chiefly on sanitary grounds; possibly among them septic contamination. But in the families of the poor the newspaper supersedes in cleanliness the musty old quilts I have had to use in years gone by. In the families of the rich we have the wood-wool pads and napkins; in some cases rich old linen; in others cool, sweet, clean muslin; in others again, cotton batting subjected to a high heat in the oven and wrapped in well washed cheese-cloth—and all are excellent; but I have had just as good results from the use of the ubiquitous newspaper.

The second “head of my discourse” has to do with forceps delivery. I desire to call

*Read before the Michigan State Medical Society.

attention to the axis-traction handles that are for sale by every surgical-instrument dealer, that are easily applied, and cost but a trifle; by their use one can expedite a tedious labor and deliver the child where otherwise it might be necessary to call for professional assistance. At some time or another you have no doubt stood tugging and sweating in a tedious case, pulling all you dared for fear of suddenly rupturing the perineum, and persuading yourself you were exerting all your strength, when as a matter of fact you were shoving with the left hand as much as you pulled with the right, and the child's head made no progress. Stop to think a moment! Seizing the woman by the arm or leg, you can with one hand drag her from the bed, and not exert all your strength either—so the visible manifestation of strength apparent at the handles of the obstetric forceps is merely pantomime—you tire yourself and do no good. I once saw a doctor, a large man, making traction with both hands and all his force on the head of a child; not being able to extricate it, he called to another doctor to grasp him about the waist and pull on him; the attendants held the lying-in woman—a little thing not much larger than a thirteen-year-old girl, yet she was thirty-five and this her first baby. At last the delivery was completed with a bang, but at the cost of complete rupture of perineum and rectum. "Oh, my countrymen!"

Now by the proper use of the axis-traction handles this labor could have been nicely and properly brought to an end without such serious results, therefore I most heartily commend them; and if a trial of them is given, before another half-dozen difficult cases have passed through your care you will unite with me in saying they are simply invaluable.

I proceed now to speak of the management of uræmic convulsions. I was called a few days ago to see a lady who was having repeated convulsions; she suffers from Bright's disease, a malady that caused the death of her father. I prescribed for her a year ago, when urinalysis revealed casts and albumen. She improved, and in a few months ceased to menstruate, but aside from this had no sign to convince her she was pregnant. I lost track of her, hearing occasionally that she

boasted of "the best health she had ever known, with splendid appetite."

When confronted with a convulsive seizure I was not slow to divine the cause—uræmic poisoning. Chloroform was administered to allay spasm, followed by copious venesection. Then chloral hydrate (a teaspoonful dissolved in a tablespoonful of warm milk) in the rectum, held there by means of a compress to the anus. Next an active cathartic—calomel, podophyllin, and croton oil, every two hours till free catharsis resulted. Then a vapor bath till profuse perspiration should result, but in this the attendants did not succeed. There were no convulsions after the administration of the chloral. Catharsis and diuresis were kept up for several days. In three days the patient was able to be up, and in less than a week to resume her household duties. She is now seven months pregnant, as the fœtal heart-sounds attest, and has not menstruated for that length of time. What I wish to emphasize in these serious cases is copious bleeding and large doses of chloral dissolved in milk and thrown into the rectum, being held there until it is absorbed.

Under the last head I will speak of those hard-to-manage, uncontrollable uterine hæmorrhages that, like Banquo's ghost, arise occasionally to vex us and "will not down." In February last I was called to see a lady who had been "flowing" for several days. She was the mother of several children, had twice been operated on for lacerations, and "had suffered much at the hands of many physicians." Having an intelligent idea of the gravity of uterine hæmorrhages, she had promptly gone to bed, and resorted to astringents, vinegar, and other household remedies, to stanch the flow, but to no purpose. I found her flowing moderately, but constantly, without pain and yet neither expulsive or passive. To describe the condition accurately would be difficult. I suspected miscarriage, but this was denied, and there was no reason for her to deny the accusation if it were true. The sound showed a depth of four and a half inches. She said all the doctors told her "her womb was too large." Curetting gave no results. Two and a half ounces fluid extract of ergot were duly administered, but no appreciable amelioration followed save that the arteries became strong. I next gave two

and a half ounces of Liquor Sedans in proper doses, then ergotin in pills for half a day—but still no result. Tampons in the vagina did no good. After three days she was anæmic, although milk and nourishing diet and quinine were given. I now resorted to hypodermatic administration of ergotole, which never failed me before, but in vain. All this time the foot of the bed was elevated and pillows removed. Now, like the gunner who had fired the last shot, I sat down to cogitate and wait for the smoke to clear up. I remembered to have read somewhere that atropine would control fluxes and hæmorrhages, and (with no faith in it) concluded to reverse the order of things and give it a trial. I had some granules, each $\frac{1}{300}$ grain, and one was given every half-hour for four hours, when the sanguineous stream that had bid fair to “go on for ever” was checked in its course, and the woman made a rapid and permanent recovery. This was the morning of the last day of treatment, and no medicines had been given during the night, so that to the atropine must be awarded the victor’s crown.

Who can account for this singular case, and who can explain the action of atropine in arresting hæmorrhage?

Ionia, Mich.

THE THERAPEUTICS OF SCIATICA.

BY DOCTOR L. B. KLINE.

My apology for a brief presentation of this subject is, that whether viewed from the standpoint of the degree of suffering attendant upon its invasion, or the persistence and obstinacy with which it continues to harass and torture its victim—disqualifying him for either physical or intellectual labor or social enjoyment,—the unsatisfactory results of the usual routine treatment render it of sufficient importance to merit the most diligent thought and earnest consideration of the profession.

I do not propose to enter upon the question of ætiology, or consider the anatomical changes that may take place, but will briefly call attention to some of the characteristics and complications.

Authors generally look upon this affection as belonging to the neuralgias, yet many recognize the fact that it is not always a neural-

gia pure and uncomplicated. From careful observation I have reached the conclusion that in a fair percentage of cases a rheumatic element or diathesis coexists, augmenting the suffering and delaying convalescence; this condition is perhaps more frequently present in persons pretty well advanced in life. In corroboration of this view I quote a few reliable authorities:

Da Costa says, “Generally it depends upon the rheumatic diathesis.” Bartholow, that “In most of the cases observed by the author, an attack of lumbago preceded the sciatica.” Austin, that “These are two very distinct varieties of the disease, according to my experience.” He further remarks, “A third variety of sciatica is the rather uncommon one in which inflammation of the tissues around the nerve is the primary affection; this cause is the more influential if the system is predisposed by rheumatism or any cachexia and by the neuropathic constitution.”

The primary indication in the line of therapeutics is absolute rest of the affected limb, continued throughout the acute stage—usually rest in the recumbent posture. Where rest of the entire body is impracticable, the desired object may be partially attained by the use of crutches, in order that all weight or pressure may be removed from the diseased nerve. In the selection of remedies, the ætiological factors in the case under treatment should be carefully observed, as the choice must depend largely upon their nature. When dependent upon atmospheric changes, or where a malarial element is present, quinine is indicated, and should be combined with lactophenin or acetanilid, to which may be added either Dover’s powder or morphine, according to the severity of the symptoms. If the attacks prove severe and prolonged, the most reliable form of medication is morphine and atropine administered hypodermatically; I have found special advantage in injecting it into the deep structures of the limb, as near the sciatic nerve as possible. This may be repeated daily for several days, or until the acute symptoms have been subdued.

Where there are evidences of rheumatic diathesis or complication, anti-rheumatic remedies are indicated and will accomplish bene-

ficial results; among them I depend chiefly upon iodide of potassium and salicylate of sodium, or salol. As a local remedy, in case the attack proves intractable, I recognize blisters as of the first importance and productive of decidedly good results; application should be frequently repeated at different points along the course of the nerve and of its branches, and they generally give immediate relief in the locality where employed. The benefits derived from the treatment, however, are not simply palliative, but curative as well.

In the chronic stage of the disease, arsenic, strychnine, and sulphate of zinc are remedial agents that may be resorted to with some degree of success in many instances. In anæmic and greatly debilitated constitutions, iron and cod-liver oil are valuable adjuvants. There are a number of other pharmaceutical agents that may be indicated, possibly demanded, to meet certain symptoms or conditions, which will be suggested to the attending physician.

In conclusion I wish to call attention to a mode of therapy in connection with the treatment of this affection that has, to my mind, failed to receive the degree of attention that it merits, viz., Electricity. I do not recommend it in the acute stage, as at this time there may be present a neuritis or an inflammatory condition around the nerve, contra-indicating its employment; but where the chronic stage is prolonged by the continuance of more or less pain and a diminution of the power of motion, and possibly some loss of sensation, there is, I think, no remedy that can be substituted for it. It should be employed twice in twenty-four hours, for from ten to fifteen minutes at a time, applying one pole as near as possible to the origin of the sciatic nerve, and the other to the plantar surface of the foot. All painful points of the nerve and its branches should be successively included in the current.

After the patient has become accustomed to the application, a pretty strong current may be employed. I have practically demonstrated the benefits of this mode of treatment, and commend it to members of the profession.

Catawissa, Pennsylvania.

Clinical Reports.

SOME SURGICAL AND GYNÆCOLOGICAL CASES.

BY MONTAGUE L. BOYD, M.D.

Case 1.—This was a young man who, while hunting, accidentally discharged a shotgun loaded with bird-shot and received the entire load in his jaw (Fig. 1). The inferior maxilla



FIG. 1.



FIG. 2.

from the chin to the angle was shattered, and the soft parts in every direction filled with shot. For weeks after the accident the shot came out or were picked out of the wound. That portion of the bone posterior to the angle necrosed, and was removed. Two or three operations in cutting away the inverted edges of the wound and bringing them together, assisted in getting the result which appears in Fig. 2.

It was my purpose to dissect up the angle of the mouth that is drawn down, and fix it in such a position as would have given the best possible shape, but the patient became tired of staying in hospital, and declined further surgical interference. He masticates perfectly with the other side and enjoys perfect health.

Case 2.—E. E. S——, age 35, consulted me in the spring of 1894. The deformity, as will be perceived from Fig. 3, was a very peculiar



FIG. 3.

one. There was a protuberance projecting from each femur on the inner aspect of the thigh, at the lower part of the middle third, about one-half as large as the thigh, and forming an angle of about 45 degrees with the latter. The protuberance on the right thigh was ten inches long; on the left, four

inches. This man, when sitting so that his lower extremities could not be seen, presented the appearance of a magnificently developed specimen of manhood, and is quite handsome.

On April 10th, 1894, the protuberance on the right thigh was amputated, also both legs at the knee-joint. The shorter protuberance, on the left thigh, was not removed. The patient was discharged April 30th, 1894. He went to New York soon afterward, and was supplied with artificial limbs, upon which he walks very well.

This case is reported, not because of anything remarkable in the operation, but because of the peculiar congenital deformity.

Case 3.—Mrs. J——, age 30, white, was sitting at a machine sewing. Her brother-in-law was sitting three or four feet behind her "fixing an old 38-calibre pistol that was 'unloaded,'" but the pistol was accidentally discharged and the ball entered Mrs. J——'s back just above the crest of the ilium and about two inches to the left of the centre of the spinal column. She suffered much pain, passed bloody urine, and numerous blood-clots from the bladder. Micturition was painful, frequent, and spasmodic, only a small quantity of urine being passed at a time. There was pain and tenderness in the lower part of the abdomen for two or three days. This gradually subsided until about the fifth day, when only a very small spot was sensitive to pressure. On the third day after the accident I instructed the patient to sit up to pass her urine, and the third time she did so a 38-calibre ball fell into the chamber. All the bladder symptoms at once subsided, and the patient made an uninterrupted recovery; in three weeks she was entirely well. At no time did the temperature exceed 100°.

Case 4.—In April, 1894, I was called to Mrs. L——, German, and found her suffering intensely. She could not talk English well, and I could not talk German at all, but managed to understand that she wanted me to make a vaginal examination. Upon attempting to introduce a finger I detected a hard substance protruding. Inspection showed the stem of this old-fashioned butterfly pessary. Taking hold of the projecting end, the pain caused thereby was so great I was forced to desist. I then sent for chloroform, anæsthetized the patient, and removed the instrument. The body of this barbarous affair had sloughed through the anterior vaginal and posterior vesical walls, and I had to deal with a vesico-vaginal fistula from the cervico-vaginal junction to within one inch of the meatus. This was operated on subsequently,

and almost a perfect result obtained. The last time I examined her, three weeks after operation, there was a pin-hole opening near the top of the wound, which only leaked if the bladder became full. The patient, having been operated on twice, refused any further surgical interference. Her condition was so much better than it had been, she felt, comparatively speaking, that she had no trouble. Later, the pin-hole opening was found to have spontaneously healed.

Case 5.—Mrs. K——, age 34, was suffering from ill-health which dated from the birth of her one child three years ago. Had had much pain in her right side, and a slow convalescence after labor; more or less pain ever since. I saw her first in March, 1895, when she had been in bed several weeks, suffering much pain in right side. Examination disclosed the right Fallopian tube greatly distended with liquid so as to make a tumor, as well as it could be outlined, as large as a large orange. The diagnosis of pyosalpinx was made and an operation advised.

On December 15th, 1895, the usual median incision was made in the abdomen, when a very much distended pus-tube was disclosed, bound down to the broad ligament and to the uterus by firm and extensive adhesions, so that the question of the advisability of opening and draining through the vagina was considered. However, by gentle and persistent manipulation with the fingers and handle of scalpel, the adhesions were at last overcome and the tumor removed. It was necessary to empty the sac of pus before this was possible, and, my aspirator failing to work, this was done by passing a curved needle, armed with stout braided silk, through the tumor in two places (after the manner of passing these sutures in the bladder in a supra-pubic cystotomy before opening it), cutting between these, when the pus was drawn with a syringe and wiped out with sponges, about twelve ounces being removed. The raw surface left after removal was so extensive it was deemed best to use drainage. A glass tube was therefore inserted into Douglas' cul-de-sac through the lower angle of the incision. As bloody serum continued to accumulate, this drain was left in place for three days; then the opening was closed by a silkworm-gut ligature placed during the operation for that purpose.

Up to this time and for three days subsequently, the patient had no increase in temperature. On the third day after the drainage tube was removed, a slight chill occurred and the temperature rose to 102.5°. The dressing was at once removed, the stitch taken out,

and about one-half ounce of pus squeezed from the opening. The opening was washed out with sterilized normal salt solution, peroxide of hydrogen injected, and iodoform gauze packed in. This was repeated every day for about two weeks, when the sinus was healed and the patient discharged. No ventral hernia has appeared. The patient is quite well and happy now.

Case 6.—Mrs. C——, age 42, married, with several children, the youngest ten years of age, was seen by me in January, 1895, and a diagnosis of subperitoneal fibroid of uterus was made. She was suffering intense pain, simulating labor pains; hæmorrhage abundant; very anæmic and reduced in strength. Morphine was given subcutaneously, from time to time, to make the pain bearable, and ergotin in two-grain doses administered every three hours. The pain and hæmorrhage being somewhat relieved by this treatment, she was advised to go to the Savannah Hospital for a radical operation.

On the 28th of February a supra-pubic cœliotomy was done in the median line. The tumor, as large as a child's head at birth, and extending up to the umbilicus, was enucleated. The cavity from which the tumor was removed was so large that it was deemed best to remove the uterus and appendages. The cervix was cut across just above the fundus of the bladder, and the latter stripped down with the fingers, an assistant holding a sound in the bladder. Too much violence was exerted, either by me or the assistant, and the sound punctured the posterior wall of the bladder. This was immediately repaired and the peritoneum stitched over the sound. The bladder was then filled with water to make sure it did not leak. The operation was completed by ligating the ovarian arteries, tying off the broad ligament in sections on the pelvic end, clamping with large hæmostatic pressure forceps on the uterine end, and cutting between. The uterine arteries were then ligated by running a needle, armed with silk, around them. No elastic ligature was used.

The incision in the anterior portion of the cervix was met half-way by a similar incision from behind, which detached the uterus and left the healthy cervix, which, after stitching the peritoneum over it, made a firm floor for the abdominal cavity. A glass drainage-tube was put in Douglas' cul-de-sac and left for forty-eight hours. There was some oozing, which was removed every six hours with a soft rubber catheter attached to the nozzle of a small hard rubber syringe. The temperature of the patient did not at any time

exceed 99° , although a stitch abscess formed around the strand of silkworm-gut which had been put in at first to close the opening left for the drainage tube.

The patient was discharged from the hospital on the first day of April, 1895, and has been well ever since. She is a working woman, does her own housework, and nurses a son who is in the last stages of consumption. The peritoneum and fascia were brought together with a continuous catgut suture, silkworm-gut through-and-through sutures having been first placed. These were tied afterwards.

Case 7.—Myra F——, octroon, aged 40, no children, was brought to me by Doctor J. G. Jarrell, who had diagnosed uterine fibroid beginning to break down. Patient was suffering great pain and was bleeding profusely; the blood was at times mixed with foul-smelling pus. There had been a slight rise of temperature for several weeks. Operation for removal of tumor, uterus and appendages was advised, to be done without delay.

Supra-pubic cœliotomy was done in the same manner as described in the case of Mrs. C——. There was practically no fever and very little pain following the operation. On the afternoon of the second and third days the temperature reached 100° , normal in the morning. No drainage tube used, and primary union secured.

Two weeks after the patient left the hospital, however, Doctor Jarrell discovered a small mural abscess, and upon opening it found and removed a silkworm-gut ligature, which had been overlooked. A few months later a small ventral hernia made its appearance at the site of the abscess; patient refused to submit to operation for its cure. With this exception the woman is well; she makes her living as a laundress.

Case 8.—Mrs. S——, white, aged 37, married, no children, no pregnancy, was seen by me first in April, 1895, when was obtained a history of mental derangement dating back about twelve months. She had been treated by several physicians, with no improvement; was at times violent and destructive, and had about demolished all of the china, looking-glasses and other things breakable about the house; at other times taciturn and morose, her mental trouble taking the form of melancholia.

Upon examination I found a subperitoneal uterine fibroid tumor reaching almost to the umbilicus. Believing that the mental trouble was wholly or in part dependent upon the existence of the tumor, I advised its removal.

On May 13th, 1895, at the Savannah Hospital, a supra-pubic cœliotomy was done in the median line, and the tumor, uterus and appendages were removed in the manner described in the case of Mrs. C——, except that no attempt was made to strip the bladder from the uterus; the incisions for the removal of the latter were made just above the fundus of the bladder. A drainage tube was inserted, but removed in twenty-four hours, there being practically no effusion into the abdominal cavity. The temperature did not rise above normal at any time. Patient was discharged physically well and much improved mentally.

Within eight weeks from the date of the operation she was doing her own housework, including the cooking for herself, husband, and mother. She has had three or four attacks of mental aberration since, accompanied by her old destructive *cacoëthes*, but they lasted only a few days, with one exception. On this occasion (last October) she remained violent for several weeks, when her husband became discouraged and made arrangements to send her to Doctor Allen's Institution near Milledgeville, but before they could be completed she became lucid and has been so ever since. She is not strong-minded, but her physical health is good and her mental condition greatly improved.

Case 9.—Jane ——, colored, aged 45, married, no children, for twenty years had complained of pain in the region of the left ovary; the pain had grown progressively worse until she came under my observation. She was unable to do any work, and was confined to her room.

Operation for the removal of the ovary was performed, and the organ found enlarged and adherent to the tube and pelvis. In fact, the ovary and tube were so matted together by adhesions that it was difficult to distinguish one from the other. The fimbriated extremity of the tube was so firmly adherent to the pelvis that it was ligated and left there. Patient recovered promptly and perfectly, has had no pain since, and does manual labor for her living.

Case 10.—Mrs. S——, white, aged 46, and a widow for fourteen years, in the spring of 1888 noticed a gradual enlargement of the abdomen. She was seen by a physician at Milledgeville, her home, from time to time, and a diagnosis of ascites was made (she says). In August, 1889, she was tapped, and two and one-half gallons of fluid obtained. For about twelve months after there was no perceptible enlargement of the abdomen; then it gradually began to increase, and was again tapped in June, 1892, when three gal-

lons of fluid were withdrawn. About six months after this the enlargement began again, but increased slowly, and she was not tapped again until January, 1895; result of the tapping, four gallons of fluid. Patient menstruated regularly through all this time,

silkworm-gut interrupted sutures. No drainage was needed. The recovery was uneventful. The temperature reached 100° on the afternoon of the first and second days after the operation, after which time it was normal until the patient left the hospital on the 11th



FIG. 4.

had no pain of consequence, and suffered little inconvenience except that caused by the enlargement and consequent weight of the abdomen. In February she came to Savannah, when I diagnosed ovarian cyst and advised operation.

The morning of the 17th of March, an incision three inches long was made in the median line, beginning three inches below the umbilicus. The abdominal walls were very much attenuated; the rectus muscles having disappeared from their usual position, there was practically nothing to cut through before reaching the sac except the skin, a very little fat, the fascia and peritoneum. The sac was unintentionally cut into, and some of the fluid escaped before the sac could be caught and held up by volsellum forceps. When this was secured, to prevent the escape of the fluid into the peritoneal cavity, the patient was turned on her side and a large foot-tub and two water-buckets filled with the fluid. The sac, and the left ovary to which it was attached, were then removed. The right ovary was found to have undergone cystic degeneration, and was removed. The peritoneal cavity was carefully sponged out to remove the fluid which had found its way there, and the abdominal incision closed by a continuous catgut suture in the peritoneum and fascia, and through-and-through

of April. The fluid and the sac weighed seventy-five pounds. Fig. 4 does not give a good idea of the woman's size as the abdomen loomed up on the operating-table.

Savannah, Georgia.

PSYCHIC DEVELOPMENT IN ANIMALS.

Doctor Wesley Mills, Professor of Physiology in McGill University, recently published* a series of papers on the psychic development of young animals—supplementary to a paper published earlier dealing with psychic development of the St. Bernard dog and Bridlington terrier. These later papers embody observations on the cat, rabbit, guinea-pig, and mongrel *Canidæ*, also upon birds.

There is so little systematic record of observations on the instincts and habits of young mammals that Doctor Mills's papers are especially welcome and should be carefully perused by those interested in the interpretation of the phenomena of instinct in the light of modern theories of heredity.

*In the Transactions of the Royal Society of Canada.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JULY 25th, 1896.

Editorial.

CALOMEL A SPECIFIC IN DIPHTHERIA.

In April last, in the *Medical News*, Doctor Lawrence F. Flick published a short paper under the above caption. This he has recently supplemented by a paper before the Philadelphia County Medical Society,* in which he more forcibly insists upon the correctness of his views as originally expressed.

His method consists in administering minute doses of calomel, frequently repeated, and insufflations of the same drug in the throat and posterior nares. Under this treatment, he asserts, the membrane over the fauces and uvula and in the posterior nares is made to rapidly disappear. A *résumé* of five cases is given in addition to those published in the *Medical News*, in all of which calomel was employed constitutionally as well as topically, and the showing seems fairly to prove Doctor Flick's contention. He declares:

Constant observation of these cases gave me an excellent opportunity of studying the specific power of calomel in diphtheria. . . . This most phenomenal evidence of the power of the drug over this disease is manifested in its action on the nose and on the false membrane. The first insufflation had so marked an effect in relieving inflammation that I could not possibly misinterpret the relation between the use of the drug and the result.

Originally Doctor Flick employed for insufflation a powder composed of sugar of milk and pure calomel, two parts of the former to one of the latter. Finding no injurious results therefrom, he ultimately sub-

stituted pure calomel with much more satisfactory effect; with the latter he found that after the first one or two insufflations the discharge from the nose ceased, and the breathing, which is often greatly obstructed, was improved.

Another surprising effect of the calomel, and a further evidence of its power over the disease, is its action upon enlarged glands. . . . As to the mode of action of the drug, I was at first inclined to think it was by stimulation of cell action in the throat; but recent experiments leave no doubt in my mind that it is by local germicidal action. The frequent repetition of the dose keeps up constant sterilization of the soil, and the smallness thereof prevents evil constitutional effects of the calomel; in no other way can be explained the failure of the action of calomel upon the membrane of the nose when given by the mouth alone, and its speedy action upon the membrane when used by insufflation.

Doctor Flick was surprised to find that calomel was not absorbed by the nasal mucous membrane, inasmuch as the daily administration of four or five grains of the drug produced no action upon the bowels so long as the occlusion of the nasal passages prevented it from passing into the pharynx; but no sooner was insufflation attended by a passage of calomel into the throat than purging followed. Doctor Flick continues:

So far as my experience enables me to say anything about the size of the dose of the drug to be given by the mouth, I think the best rule to follow is, to prescribe as much as can be taken without setting up constitutional effects. I usually begin with a sixtieth of a grain, and go up or down according to results. If the bowels become loose I decrease the dose, and if they are constipated and I see no effect upon the local conditions in twelve hours I increase the dose. There seems to be marked toleration in diphtheria, and this seems to grow as the drug is given. I have reason to believe that a tolerance for the drug is also established by the malady, for I have found it necessary to give larger doses for recrudescences of the disease than in the beginning of the attack.

Doctor Flick gives from one-sixtieth to one-fortieth of a grain every fifteen minutes until the drug proves sharply active.

The experience that has accrued to the profession in the use of calomel in diphtheria tends to favor Doctor Flick's contention. The number of cases, however, which he cites, is not sufficient for the drawing of satisfactory conclusions. Unfortunately, diph-

* *Medical and Surgical Reporter*, June 13th, 1896.

theria is one of those diseases which improve suddenly without warning, and in the most material manner, and are apt to show their ill-effects in an equally unexpected and surprising way. Nevertheless, the use of calomel in the manner indicated is worthy of careful attention and investigation, and is the more feasible from the fact that it is practically impossible to induce the toxic effects of the drug in a child ten years of age; moreover, diphtheria *does* establish a toleration of calomel, as we have realized for many years.

OLEOMARGARINE AND THE FEEDING OF FAT.*

The problem of nourishment in wasting diseases is perennial. In most instances the balance between waste and repair is greatly to the credit account of the former, despite all the resources of the medical art, direct or indirect, and whether adopted with a view to increasing nourishment or limiting elimination. Not the least of the difficulties that confront the practitioner is that of securing the full co-operation of the patient, for in sufferers of this class Hope is constantly present, along with more or less disbelief in the conclusions drawn by the medical attendant. It is rare to find a consumptive who believes his vitality is already sapped or his life seriously in danger; and such a patient will insist upon yielding to the caprices of appetite, and upon assuming that he has plenty of time before him in which to decide regarding measures that, though vital, seem to him at the moment wearying or obnoxious.

With the first introduction of cod-liver oil it was believed that the problem of nourishment in wasting diseases was solved; and this agent to-day continues to be the favorite, under the supposition that it offers the greatest possible results both to prescriber and patient, with a minimum of objectionable features. But there is nothing magical about this oil; save as an easily digested form of fat it is valueless, notwithstanding the many preparations of the so-called derivatives, active principles, glucosides, etc., which are offered to delude practitioner and patient, and which

after all are only the ptomaines of decomposition. Again, cod-liver oil is by no means the best form of fat, as has been shown on various occasions by Fothergill and others. There are few instances where the digestive organs will tolerate for any prolonged period a diet of this or any other unpleasant or pronouncedly flavored fat, despite the various attempts of the art to make them palatable. Indeed, nowhere is the truism of "one man's meat" being "another's poison" more apparent than when one assumes the management of wasting disease.—And it may be mentioned here that mineral oils which are sometimes recommended as substitutes are utterly devoid of even the semblance of nutritious properties, while vegetable fats generally are very inferior to those derived from animal sources.

Fothergill expresses a most sensible preference for natural food fats—butter, fat pork, suet, etc.; and the benefit that consumptives often derive from winter residences in lumber camps is not due so much to the boasted balsamic air as to the capacity that is thereby developed for consuming and digesting enormous quantities of hydrocarbons. This fact is often lost sight of by medical men who counsel their consumptive patients to spend their winters in the mild or enervating climate of the tropics or subtropics.

In every-day life, butter is very essential; it is not regarded with the loathing that accrues to an article of food that is popularly classed among medicaments, and consequently its free use by sufferers from wasting disease is to be encouraged to the utmost in so far as it can be borne. All this seems very simple, but unfortunately an excess of butter diet even in a healthy organism is apt to give rise to butyric dyspepsia, with so-called "water-brash," "pyrosis," "heartburn," etc.; and butyric fermentation is set up largely through the presence of a ferment—a residuum left by the buttermilk—which should theoretically be absent, but which in practice it is impossible wholly to eradicate. This latent (lactic) ferment is the cause of decomposition—frowsiness, etc.—in butter, and thus renders the products of the best dairies deficient, from a digestive standpoint. Excessive washing, moulding and mixing is always an injury to butter, inasmuch as it results in

*From the *Scientific American*, by permission.

disarrangement of the relations and proportions between oleic and margaric acids, and often—as with creamery products—gives a salve-like appearance and consistency not at all conducive to appetite.

Considering the foregoing, it seems strange that oleomargarine has not been thought of as a palatable and suitable article of diet for those suffering from wasting disease. It is free from all objections, despite the idle and malicious tales industriously spread by parties interested in securing high prices for inferior and unwholesome dairy products—were the truth fully realized by all classes, bad butter would find no market; but unfortunately the majority of the people have no comprehensive idea as to what oleomargarine is.

Méige-Mouries, the official chemist under the late French Empire, with a view of giving the poor and sea-faring people an article that would be wholesome, nutritious, cheap, and at the same time capable of being kept for unlimited periods of time, while working at the Imperial farm at Vincennes sought to imitate the process supposed to take place in the bovine economy when cows are under-fed and the butter furnished is derived from their own fat. The process he invented is practically the same as that employed to-day.

First, the very best quality of *fresh* suet, finely comminuted, is placed in a steam-heated tank along with a small amount of bicarbonate of potash and the stomachs of sheep or pigs, and retained at a temperature of 132° F. for two hours or more, or until the stomachs have succeeded in dissolving the fat membranes, and the fat itself has risen to the top:

Second, the fat is drawn into another tank and two per cent. of salt added, while it is maintained at a slightly higher temperature; and after a short time the fat becomes clear, takes on a yellow color, and presents both the taste and odor of fresh butter:

Third, the fat is again drawn off, and after cooling is cut in pieces, wrapped in linen, and placed in a hydraulic press at a temperature of 177° F. whereby it is separated into two portions—stearine and oleomargarine. The former goes to the candle-makers; the latter is artificial butter theoretically and chemically. Of course, different manufacturers vary the process according to individual ideas

and needs, and some use pepsin direct instead of obtaining it through the medium of animal stomachs; nevertheless the principle is the same on all occasions.

The resulting product, as a matter of fact, is a better and purer butter than nine-tenths of the dairy product that is marketed, and one that is far more easily preserved. No one, however expert, can detect the difference between “oleo” and the best dairy butter, except, perhaps, after a long diet of the former he may suspect the latter, owing to the faint acid flavor due to the lactic ferment that properly should have been removed. To be sure, every one imagines it possible to distinguish “oleo” from dairy butter by taste alone, but in truth differentiation is very hard to accomplish by any process, even by the expert chemist with all the most elaborate laboratory means at his disposal.

There are a large number also who imagine oleomargarine is made from any old scraps of grease, regardless of age or cleanness—which is quite the reverse of the fact; indeed, a good “oleo” can only be had by employing the very best and freshest of fat. This “artificial butter” is as purely wholesome (and perhaps even better as food) as the best dairy or creamery product. Some, while the “oleo” is fluid and at high temperature, with a view to improving flavor, add milk, water, and salad oil. In any event it is imperative upon the manufacturer that the greatest hygienic precautions be constantly employed. Consequently artificial butter, or “oleo,” is not only, as just remarked, equal to genuine butter in flavor and fully as nutritious, but greatly superior to the latter in being freed from lactic acid, whereby it is less liable to become rancid and form a harboring place for bacteria. Recently Jollies and Winkler, who are the official chemists for the Austrian Government, after a very thorough investigation, announced through the columns of the *Zeitschrift für Hygiene* that the only germs ever present in “oleo” are the varieties common to air and water; although carefully sought for, tubercle and other obnoxious bacilli were conspicuously absent. They also found that the dairy product is especially liable to be contaminated, inasmuch as the best process of manufacture fails to eliminate all the lactic-acid ferment, the ac-

tion of which even salt cannot neutralize save for a very brief period.

It may here be added that the greatest producers of "oleo" are also the greatest individual consumers thereof, for the reason—as one expressed himself to the writer—they "know what is being eaten, and have the assurance that it is always thoroughly clean"—an assurance that can never be depended upon regarding any dairy product.

"Dairy butterine," so-called, is only the attractive title given to an "oleo" put up neatly in rolls in a gauze envelope. There is, however, a cheap product denominated "butterine," sold at a much lower rate than true "oleo," which is merely a mixture of the latter and neutral lard; even this, if made from strictly fresh material, is not necessarily objectionable. Those products denominated oleomargarine, butterine, etc., which are of rank character, do not emanate from reputable factories, which are invariably connected with beef-packing houses, but from petty manufacturers who accept fats of all kinds that are rejected by the regular oleomargarine-makers. The very fact that an "oleo" offered is devoid of unpleasant odor or flavor is evidence sufficient that it is a genuine article and made only of the freshest and purest fat. Another thing regarding "oleo" is that from the time the fat is placed in the melting-vat until it is laid before the consumer as an artificial butter—the adjective "artificial" is certainly superfluous, from a chemical standpoint at least—the entire process is one of the greatest cleanliness, and the product is never by any means allowed to have the taint of human hands, and for market purposes is further protected by an envelope. Finally, it may be added a large proportion of the material at the present time marketed as pure butter, and emanating from country dairies and creameries, is but a mixture of cheap "oleo" and dairy butter.

It is surprising the amount of fat that a consumptive finds it possible to consume when employing "oleo" instead of butter, and it is by no means essential that the individual shall be informed that the product of the packing-house is not derived from the dairy if he is likely to have any prejudices in this respect.

EVILS OF THE BICYCLE.

A writer in the *Cincinnati Lancet-Clinic* declares the wheel is often the primary or exciting cause of serious rectal trouble, and that there is no affection of the rectum that it will not aggravate. He has repeatedly seen cases of fissure, piles and pruritus and develop from bicycle-riding, and resist all treatment until the machine was discarded.

A great deal of nonsense has already been written about the benefits of the bicycle to women. From a physiological standpoint it certainly is not to be recommended, especially if there is any tendency to genito-urinary troubles. Aside from this the editor of this journal is aware of several cases of production and aggravation of varicose veins thereby, and it especially tends to destroy the natural contour of the female ankle and render the same "beefy"—in other words, the ankle is enlarged and the calf caused to run down into the heel, a deformity few ladies possessed of graceful "understanding" will care to possess.

EDITORIAL NOTES.

Vibrio in Hens' Eggs.—

According to our exchanges, one Golowkow, a Russian physician, has conclusively demonstrated that the comma bacillus can penetrate the shells of hens' eggs and enter the yolks thereof.

We fancy there is a mistake in the name—that it is Munchausen, in fact, and a lineal descendant of the celebrated Baron.

Removing Skunk Odor.—

A correspondent of the *Druggists Circular* says he many years ago learned that quinine would destroy the odor of musk, and, acting on this hint, employed it successfully to remove the mephitic flavor from a pet dog which had had an unpleasant experience with one of these nocturnal Mustelidæ.

New Material for Sutures.—

And now it is announced that the tendons from the tail of a dog make better sutures than either catgut or kangaroo tendon when duly prepared with sublimate.

Items and News.

What Nations Eat.—

A statistician compiled the following figures, showing the cost of nourishment for the various nations: The average Englishman consumes \$250 worth of food per year; Germans and Austrians, \$216 worth; Frenchmen, \$212; Italians, \$110; and Russians only \$96 worth. In the consumption of meat the English-speaking nations are also in the lead, with 128 lbs. a year per capita of the population; the Frenchman using 95 lbs.; Austrians, 79; Germans, 72; Italians, 52; Russians, 50. The consumption of bread is reversed, as compared with meat; the English use 410 lbs. a year; the French, 595; the Austrians, 605; Germans, 620; Spanish, 640; Italians, 660; Russians, 725.—*The Sanitarian*.

Double Entente.—

"I can't conceive," she archly cried,
 "Wherein you men can longer pride
 Yourselves from female rivals free,
 For surely we have grown to be
 Your peers in ev'ry human stride.
 It is a truth that none dare hide;
 Yet why you men will not agree
 To recognize the new decree,
 I can't conceive.

"Now, *entre nous*, won't you confide
 And tell me true, all jokes aside,
 What difference the world can see
 Between your manly self and me?"

"To tell you truly," he replied,
 "I can't conceive."
 —Anon.

Paper Ice-bag.—

The Japanese paper ice-bag fills all the requirements of the rubber bag, in the treatment of joint diseases and acute rheumatism. The rubber ice-bag is an expensive, cumbersome and heavy affair. The Japanese ice-bag is inexpensive and quite durable, and can be folded up and packed in a physician's valise, ready for use at any time; it takes up less room than a thick piece of paper. It is softer, lighter, and more agreeable to the skin than rubber.—DOCTOR PHELPS, in *Pædiatrics*.

A Misunderstanding!—

Mrs. Mulcahy: "An whin do the powthers be taken?"
 Apothecary: "Early in the morning, fasting."
 Mrs. M.: "Phwat do you mane by fastin'?"
 Apothecary: "On an empty stomach."
 Mrs. M.: "Howly Moses! An how'll I iver ketch me ould man that way? Sure he's full as a goat whin he wakes up!"

Vivisection in Switzerland.—

Recently the people of the Swiss canton of Schwyz voted by referendum on the question whether vivisection should be permitted or not. A motion to prohibit vivisection entirely was rejected by 36,476 votes against 17,297, and a proposal of the local Society for the Prevention of Cruelty to Animals to allow the practice of vivisection for *bona fide* scientific purposes was adopted by 35,191 against 19,554 votes.—*Scientific American*.

Hard Lines.—

A lady teacher in one of the public schools, in trying to explain the meaning of the word "slowly," illustrated it by walking across the floor. Then she asked the class to tell her how she walked. She nearly fainted when the response came: "Bow-legged, ma'm!"

Musk Odor.—

Passy has found that to perfume one liter of air with camphor 0.000,000,000,5 gramme of the substance is required, but of musk the inconceivably small amount of 0.000,000,000,000,000,2 gramme is all that is necessary to render the odor perceptible.

Mississippi Valley Medical Association.—

The 1896 meeting of this organization will be held in St. Paul, Minnesota, October 20th to 23d. Harold N. Moyer, of Chicago, will deliver the address on Medicine, and Horace H. Grant, of St. Louis, that on Surgery.

A World of Wisdom.—

Criticus: "I don't believe there's much difference between genius and insanity."
 Struggling Author: "Oh, yes, there is; the lunatic is at least sure of his board and clothes."—*Tit-Bits*.

Gratitude of the Patient.—

The gratitude of the patient is well known to me—it is part of the disease. It comes on with the fever, improves during convalescence, and is cured by a return to health.—*Vaquerie*.

A Specialist.—

The Wife: "Isn't that your eye-doctor?"
 The Husband: "I thought so until he sent in his bill. He's a skin specialist."—*Harper's Weekly*.

The American Dermatological Association.—

The next meeting of this organization will be held at Hot Springs, Virginia, September 8th, 9th, and 10th, 1896.

Book Reviews.

CLEG KELLY—ARAB OF THE CITY. By S. R. Crockett. Cloth; 12mo; pp. 388. Price, \$1.50. D. Appleton & Co., New York.

Mr. Crockett has certainly achieved signal success in his depiction of the street arab of Edinburgh, who under his facile pen appears as a living character. Cleg, far from representing an abnormal creation, is a thoroughly natural and healthy bit of street ignorance in bad environment, reaching up in unconscious heroism for the best in his outlook, and guarded always by a humorous philosophy.

More than all, Mr. Crockett has proven his versatility. He has given us stirring tales of adventure, as in "The Raiders" and "A Galloway Herd," sketches of Scottish character true to life, such as appear in "The Sticket Minister" and "Bog Myrtle and Peat," the daintiest of love stories, as embodied in "The Lilac Sunbonnet;" and now his portraiture of slum life fairly causes one to marvel.

We understand at the outset that the sense of honor, curiously perverted yet instinctive and true, which graces and guards "Tim Kelly's loon," comes to him through his mother. Never was a more touching scene than that—alas, all too early in Cleg's history—where the lad plays happily in the brickyard, while his mother watches him at the window, reluctant to spoil his amusement, and waits for the final touch of pain. Then the boy is left with his father—a drunkard and house-thief—who is in jail for a year or more at a time. Thus the laddie grows up with nothing but a mother's heritage to protect him. We are made acquainted with Cleg's friends and carried through many an incident, homely enough in itself, yet picturesque and strong. Little Vara Kavannah and her sorrowful charge, the funny record of Cleever's boy, the humanities of charming Celie Tennant, the heroism of Muckle Alick, and the vagaries of the mad General, constitute a series of sketches every one of which is the work of an artist.

In conclusion, we believe this is the most vigorous, as it is the most interesting, of Mr. Crockett's many books; Cleg's efforts to keep the debit and credit account of his friends and foes fairly balanced give us touches of nature which we have never seen surpassed in literature.

THOSE GOOD NORMANS. By Marie Jussen. Cloth; 24mo; pp. 286. Price, \$1.00. Rand, McNally & Co., Chicago and New York.

The practical character and keen instinct of the people of Normandy afford ample opportunity for the kind of serio-comic satire in which Miss Jussen ("Gyp") indulges. The reader is initiated into the fortunes of the Dutrac family, whose desire to obtain social standing leads them to buy a chalet at a Norman watering place, also with a view of embarking Dutrac père on a political career. The coarse nature of Madam and her sons, the finer

character and good-nature of the father, along with other characteristics, are revealed in the spirited dialogue.

CAVALRY LIFE IN TENT AND FIELD. By Mrs. O. Bronson Boyd. Cloth; 12mo; pp. 376. Price, \$1.25. J. Selwin Tait & Sons, New York.

It might be imagined from the title that this dealt with the thrilling episodes peculiar to army life upon the border, but on the contrary it details the trials and tribulations of the wife of a cavalry officer, and incidentally gives an insight into the hardships which are little appreciated by those who have not had them brought directly home. As a whole it is a very interesting little volume, and we cordially recommend it to those who are in the least interested in army life, as a presentation of a phase that rarely reaches the public.

OBSTETRIC ACCIDENTS, EMERGENCIES, AND OPERATIONS. By L. Ch. Boisliniere, A.M., M.D., LL.D. Cloth; 12mo; pp. 381. Price, \$2.00. W. B. Saunders, Philadelphia.

This is a volume intended for ready reference, and especially designed for those suddenly thrown upon their own resources without the benefit of consultation or elaborate library reference.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. The Ontario Publishing Co., Toronto.

The July issue opens with a contribution by Mary T. Bayard, entitled "The Communistic Celibates of 'Economy,'" "Victoria University" is by H. Hough; "A Canadian Bicycle in Europe," by Constance R. Boulton, and "Kate Carnegie," by Ian Maclaren, are continued; "Twenty-nine Years of Confederation" is by Frank Yeigh; "The Wrong Jimmie" is a story by W. S. Arnold; Charles E. Macdonald writes of "The Highland Regiments and Their Origin;" "Something About Cape Breton" is by Thomas Mulvey; "My Great-grandmother's Work-bag" is by E. Letitia Phillimore; "Reminiscences of the 100th Regiment and of Gibraltar" is by an Old N. C. O.; "For Services Rendered" is by Mabel M. Helliwell; "Non-descript" by Ella S. Atkinson; "Current Thoughts" by J. A. Cooper. The poetry is by Francis Sherman, George W. Armstrong, Jean Blewett, John S. Thomson, and Marry Marstyn. There are the usual departments.

THE YOUTH'S COMPANION. Price, 3 cents; \$1.75 per year. Perry Mason & Co., Boston.

The Fourth of July number has a tale by C. A. Stephens which will make many an old boy wish he were young again. He tells how some lads, who desired to make "the biggest noise that was ever heard," produced a dozen explosions high in the air in the middle of the night that caused windows to rattle, crockery to shake, people to run out into the street, while the authors had to "take to the woods." The way in which a boys' military company saved a village celebration from failure is spiritedly told in the same issue of the *Companion*; also the experiences of five cow-boys who earned \$1500 capturing grizzlies on Independence Day. The late Admiral T. H. Stevens, U. S. N., gives a

most interesting account of pets on shipboard; and Sir William M. Coway, the great mountaineer, relates some of his youthful adventures which are exciting enough to make a Fourth of July in themselves.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

The July number opens with an article entitled "On a Bicycle in the Streets of London," by Susan, Countess of Malmesbury; "A Day with the Peshawar Vale Hounds" is by Fuller Whistler; Horace Hutchinson writes of "The Badminton 'Golf' and its Critics;" "Topper" is by W. E. Norris; "Some Big Hits and Big Hitters," by W. J. Ford; "Sport with the Brigands of Macedonia," by Dayrell Davies; "Amphion," by the Earl of Suffolk and Berkshire; "Swimming and Life-saving," by the Honorable Sydney Holland; "Charles Davis," by Lord Ribblesdale; "Fins," by E. F. T. Bennett. The articles in this issue are illustrated by Herbert Horwitz, E. Caldwell, John Beer, F. S. Wilson, Lucien Davis, Dayrell Davies, H. M. Brock, S. T. Dadd, G. H. Jalland, and E. F. T. Bennett. There are the usual "Notes by 'Rapier'."

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

The opening story in the July issue is "Maurice and His Father," a romance of the American Revolution, by Sarah K. Wiley; "Owney's Trip Around the World" is by C. F. Holder; "Gunpowder," by J. M. Ellicott; "A Story of Admiral Farragut," by C. H. Bodder; "A School for Firemen," by C. T. Hill, "Sindbad, Smith & Co.," by Albert Stearns, "The Story of Marco Polo," by Noah Brooks, "The Swordmaker's Son," by W. O. Stoddard, and "The Lost Princess," by Tudor Jenks, are continued; "Toby Hinkle, Patriot," is by Pauline Wesley. The poetry is by Benjamin Webster, Caroline F. Needham, Clinton Scollard, Mildred Howells, W. C. McClelland, Mary E. Stone, C. H. Webb, C. C. Jencks, and Pauline King.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Publishing Co., Irvington-on-the-Hudson, N. Y.

In the July number Lewis L. Dyche writes of "The Curious Race of Arctic Highlanders;" H. C. Chatfield-Taylor of "The Evolution of the Spaniard;" "Great Orators and the Lyceum" is by James B. Pond; "Uriel Acosta" by I. Zangwill; J. B. Walker writes of "Aërial Athletes and 'The Coming Race,'" "A Spy of France" is by J. A. Altscheler; "The Preservation of Wild Animals" by R. W. Shufeldt; "Mrs. Cliff's Yacht," by Frank R. Stockton, is continued. There are also "Some Examples of Recent Art" and a poem by Katrina Trask. There are the usual departments of "In the World of Art and Letters" and "The Progress of Science."

DONAHOE'S MAGAZINE. Price, 25 cents; \$3.00 per year. Donahoe's Magazine Co., Boston.

The issue for July contains: "A Hundred Years of Robert Burns;" Bernard Morgan's "Mary Stuart, a Saint?"; A. G. Murray's "The Fan in Church History;" Frederick T. Hodgson's "Celtic Art in Modern Ornamentation;" and Reverend John Talbot Smith's critique of Manager Augustin Daly. "Cor-

onation Day at the Vatican" is by Mary Donegan Walsh. William Sulzer contributes a short, strong paper on the interference of recent legislation with individual rights; Reverend P. Griffy asks "Can Protestants Prove the Inspiration of the Bible?" There are three excellent contributions of fiction by Mary F. M. Nixon, Alan Adair, and Sophie Hammond, and a number of unusually good poems.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

In the July issue F. Marion Crawford writes of "St. Peter's," its capacity, etc.; "Glimpses of Venezuela and Guiana" is by W. N. King; there is another installment of W. M. Sloane's "Life of Napoleon Bonaparte;" "Sir George Tressady" by Mrs. Humphry Ward, and "Impressions of South Africa" by James Bryce, are also continued; "Recollections and Anecdotes of Bulow" is by Bernard Boekelman; "A Family Record of Ney's Execution" is written by Mme. Campan; "An Arctic Studio" is by F. W. Stokes; "The Pot of Frightful Doom" is by C. B. Fernald; "A Comedy of War" is by Frank P. Humphrey. The poetry is by Clarence Army, Edmund Gosse, Clinton Scollard, Harriet P. Spofford, and Edith Wharton.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

Contents for July are: "Observations Regarding the Occurrence of Anthracite, with a New Theory of its Origin," by W. S. Gresley; "Serial Nomenclature of the Carboniferous," by C. R. Komen; "Notes on Cambrian Faunas: the Genus *Microdiscus*," by G. F. Matthew; "On the Occurrence of Silurian Strata in the Big Horn Mountains, Wyoming, and in the Black Hills, South Dakota," by C. E. Beecher; "The Amount of Water in the Earth's Crust," by W. B. Greenlee; "Editorial Comment;" "Review of Recent Geological Literature;" "Recent Publications;" "Correspondence;" "Personal and Scientific Notes."

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for July 11th contains "Home Architecture;" "The Tenement House Question;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture"—VIII; "Saint-Front of Périgueux, and the Domed Churches of Périgord and La Charente"—III; "In Streets and Papers;" "The Standing of Engineering among the Professions;" "Study of Architecture at l'École Centrale;" "Legal Notes;" "Book Reviews;" "American Stained Glass Window for Export;" "The Tin Plate Industry;" "Asbestos;" "Hygiene in the School Room;" "Societies;" "Gasoline Engine;" "Special Mention."

OUTING. Price, 25 cents; \$3.00 per year. The Outing Co., New York.

Outing for July is an ideal summer number. A valuable article is "The Trotting and Pacing Champions of To-day," by E. B. Abercrombie. The fiction is unusually strong, including "Two Handicaps," by Caroline Shelley, and "My Match with Eileen," by L. O. Robbins. Other notable

features are: "The Twenty-Raters," by R. B. Burchard; "Swimming," by Ed. W. Sandys; "The Cruise of the Snark," by G. A. Warder; and "A Night with White Goats," by Mary T. Townsend. The numerous portraits of famous horses and yachts make the number a most valuable one.

THE JOURNAL OF COMPARATIVE NEUROLOGY. Price, \$1.00; \$3.50 per annum. Herrick, Strong & Herrick, Granville, Ohio.

The June issue of this excellent quarterly contains an essay on the "Comparative Anatomy of the Insula," by Tracy Earl Clark, B.S.; "Review of the Golgi Method," by Oliver S. Strong; "The Dorsal Sac, the Aulix, and the Diencephalic Flexure," by B. G. Wilder; "The Ectal Relations of the Right and Left Parietal and Paroccipital Fissures," by B. G. Wilder. There are the usual "Literary Notices" and editorial comments on "Neuronymic Progress in America."

NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Co., New York.

The July issue contains: "Declaration of Independence in the Light of Modern Criticism," by M. C. Tyler; "Russia After the Coronation," by Karl Blind; "International Delusions," by F. E. Clark; "The Stepchild of the Republic," by W. E. Smythe; "A Common Coinage for All Nations," by C. W. Stone; "Teacher's Duty to Pupil," by Cardinal Gibbons; "The Right of Privacy," by J. G. Speed; "Sound Money the Safeguard of Labor," by R. B. Mahany; "Petticoat Government," by Max O'Rell.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston and New York.

The July number contains: "The Real Problems of Democracy," by E. L. Godkin; "A Century's Progress in Science," by John Fiske; "Arbitration and Our Relations with England," by E. J. Phelps; "The United States and the Anglo-Saxon Future," by George B. Adams; "Speculations of a Storyteller," by George W. Cable; "Young America in Feathers," by Olive T. Miller; "The Old Things," by Henry James; and "The Country of the Pointed Firs," by Sarah O. Jewett.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Company, New York.

The July number contains: "Karma in the Bhagavad Gita" (III), by Charles Johnston; "The Subtle Body," by Edward G. Day; "The Serpent and its Symbol," by Charles A. Foster; "Spirit in Man and Nature," by C. S. Wake; "Conception and Realization of Truth," by Frank H. Sprague; "A Prophetess of the New Life," by Lilian Whiting. There are departments of "Psychic Experiences," "The World of Thought," etc.

THE MONIST. Price, 50 cents; \$2.00 per year. The Open Court Publishing Co., Chicago.

The July issue of this quarterly opens with a paper by Professor Woods Hutchinson entitled

"The Holiness of Instinct," "Philosophical Terminology and Its History" is by Professor Rudolf Eucken; "On the Origin and Import of the Idea of Casuality," by Professor F. Jodl; "Science and Faith," II, by Doctor Paul Topinard; "The Problem of Good and Evil," by the Editor; "Literary Correspondence," by Lucien Arréat. There are the usual reviews of books and periodicals.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 20 cents; \$2.00 per year. The Monthly Illustrator Publishing Co., New York.

The principal papers for July are: "Eminent American Artists," VI, by R. R. Wilson; "From Cuxhaven to Constantinople," by C. W. Allers; "American Students at Heidelberg," by Edward T. Hein; "The Choquard Farm," by Victor Cherbuliez; "In the Medicine Bow Mountains," by Captain J. Crawford; "Henry Irving as King Arthur," by Bernard Partridge; "Some Notes on English Canals," "A Man About Forty," by G. S. Brown.

AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

The July issue contains: "The Classification of Diatoms," by Clarence J. Elmore; "A New Factor in Evolution" (continued), by J. Mark Baldwin; "The Path of the Water Current in Cucumber Plants" (continued), by Erwin F. Smith; "Editor's Table," "Recent Literature," "Recent Books and Pamphlets," "General Notes on Mineralogy, Petrography, Geology and Paleontology, Botany, Zoölogy, Entomology, Embryology, Psychology, Anthropology, and Scientific News.

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

Contents for July: "Amateur Home Decoration," by Margaret Muchmore; "An Empire Drapery," by Alice M. Kellogg; "A Cosy Corner," by E. R. Dalley; "The Cool Room," by Mrs. Oliver Bell Bunce; "Art Trade Supplement," "Concerning the Library," "Editorial Annotations," "Furniture and Furnishings," "Mural Decorations," "Of Interest to Women."

THE UNITED SERVICE. Price, 25 cents; \$2.00 per annum. L. R. Hammersly & Co., Philadelphia.

The July issue is No. 1 of Volume XVI. John J. O'Connell writes of "The German Army," "What Our Cavalry in Mexico Did, and Did Not Do, and Other Things," by W. B. Lane, is continued; "The Olympic Games" is by G. S. Robertson; "Bacon and Shakespeare," by D. G. Adey, is continued. "Naval and Military Notes" is by L. S. Van Duzer; "A Naval Utopia" and "Service Salad" complete the number.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Co., Boston.

The July number contains: "Economy," by Mrs. Matilda W. Howard; "The History of Cookery," by Mary W. Plummer; "The New Domestic Science," by Calvin Keyser; "Atlanta Universities," by Mrs. Anna J. Atkinson; "Feats of the Frying Pan," "America's Birthday," "Curry-making," etc.

Therapeutic Brevities.

Silver in Surgery.—Metallic silver, when brought into contact with colonies of schizomycetes, kills them without exerting any unfavorable action on the animal tissues, so the late Marion Sims's choice of silver wire as a material for sutures was happier than could be realized at the time. Aseptic wounds coated with silver foil remain aseptic for weeks at a time, and heal better than with any other dressing. Instead of silver foil, I have lately employed a dressing fabric in which metallic silver is intimately blended in such a manner as to admit of its being cut or torn into any shape desired. There is also a dressing in the form of a mull containing powdered silver that may with advantage be substituted for iodoform gauze in packing deep wounds.

Numerous experiments have shown that silver forms a lactate with the lactic acid produced in the metabolism of the micro-organisms, and that this compound kills them. Therefore it occurred to me to make direct use of silver lactate, instead of silver in the metallic state. This preparation fulfills all the requirements of an antiseptic better than any other. I have given as much as fifteen grains of it subcutaneously without the least ill-effect; there was only a slight burning pain at the site of the injection, lasting but a few minutes. Silver lactate forms no insoluble compounds with the alkaline secretions of a wound or with tissue juice, as, for example, corrosive sublimate does, but only soluble ones, which gradually permeate the tissues and thus extend their action to some distance from the surface.

Silver citrate, however, seems to be quite as efficient and to be free from some minor disadvantages [not specified] of the lactate; it is a perfectly harmless antiseptic and an excellent dusting powder for wounds. In the course of four months I have treated many hundreds of wounds with it, and with never the least untoward effect.—*CRÉDÉ*, in *Deutsche Medicinal-Zeitung*.

Two Bad Cases Promptly Relieved.—Doctor F. Spencer Halsey, of New York, reports he has used Taka-Diastase to advantage in the treatment of amylaceous indigestion, and gives the following brief recital of two typical cases which illustrate its efficacy:

Case 1.—Male, aged 50 years. Had for over a year been troubled with repeated attacks of indigestion. During part of that time had been unable to digest anything but

an egg beaten up with milk; suffered constantly from gastric distress, distention, flatulency, and more or less constipation. Pepsin and dieting failed to give relief. He was then put on Taka-Diastase and instructed to take one capsule (of two and a-half grains) immediately after each meal. Before he had taken a dozen doses the flatulency, gastric distress and distention entirely disappeared, and for the first time in weeks he could return to a more liberal diet than eggs and milk. He has continued the remedy and can now eat with satisfaction and digest his food with comfort; the constipation is relieved, and he expresses himself as feeling in good shape.

Case 2.—Female, aged 55 years. During the last two years she has had to have teeth extracted, and on account of some disease of the gums her dentist could not fit her with a permanent set of teeth. On account of this she has not been able to masticate her food, consequently suffered from severe indigestion—distress after eating; flatulency; pain in abdomen; constipation; and many disagreeable and severe nervous manifestations. I gave her Taka-Diastase, one capsule (two and a-half grains) immediately after each meal. After the second day of treatment all of the disagreeable symptoms disappeared and she expressed herself as "living in comfort again."

Constipation of Infants.—The nursing should have two to four stools a day during the first two months, and one or two after the first year; whenever they are less frequent, constipation is present. Transient or habitual constipation may be due to retained meconium, stricture of intestine, atresia of anus; symptomatic constipation to febrile states, cerebral disorders; alimentary constipation to simple or sterilized cow's milk, excess of casein or mineral waters, deficient sugar or fat; congenital constipation to intestinal occlusion, excess of length or folds of the large bowel. Consequences—rectal prolapse, umbilical hernia, invagination of the bowel, convulsions, prurigo, urticaria, eczema, anal fissure, mucous, serous or ulcerative colitis. Treatment—alimentary of nurslings, a little sugar-water (Jacobi), cow's milk four parts to sugar-water one hundred; rectal lavage by the urethral catheter, two tablespoonfuls of glycerin to one liter of water, or two tablespoonfuls of oil with the yolk of an egg to four drachms of water; massage, electricity; suppositories for fissure; no laxatives before three months, no purgatives during the first year.—*The Practitioner* (London).

The Salts of Zinc.—Zinc has a toxic action whose mechanism is not yet well understood. It acts chiefly upon the blood, producing a rapid and intense dissolution of the red corpuscles; yet no hæmaturia is seen to follow. The spectrum of oxyhæmoglobin is not changed. There is hæmoglobinuria, with albuminuria and glycosuria. The albuminuria at first is dependent upon the blood-changes, and later on the renal alterations. The glycosuria is probably due to conspicuous pancreatic lesions. Zinc diminishes the motility to complete paralysis from direct action on the muscular fibre, or on the intra-muscular terminations of the motor nerves. It obtunds sensibility to pain to entire analgesia. It does not attack the spinal cord nor the reflex centres. It depresses the heart-beat function, reducing the number of beats and weakening cardiac energy in batrachians; while in mammalia it increases the pulse-rate and weakens the systole. It arrests the heart in diastole, after cessation of respiration. It lowers intra-vascular pressure and produces vascular dilatation. This is chiefly due to dilatation of the vessels themselves from direct action of the drug upon the vessel-walls (paralysis). In large doses zinc is hypnotic. —MARAMALDI, in *Il Progresso Medico*.

Lupus and Thyroid.—A young man, aged twenty, was sent to me suffering from lupus affecting the nose and upper lip. The history of the case was that it had commenced as a small area four months before, and had spread gradually. The lower half of the nose, including the alæ, was involved; there was also a small patch on the upper lip. The case was most typical. Having previously obtained markedly beneficial results in two cases of lupus with thyroid, I gave him five grains three times a day. As even this dose quickened the pulse, I never increased the amount. In a fortnight's time the improvement, though slight, was decided. This continued, and at the end of seven weeks, although the nose looked hyperæmic, the lupus had quite healed. The redness has gradually disappeared, and the face now (three months after) presents a normal aspect. During the treatment I also put him on cod-liver oil, and got him out in the fresh air as much as possible. There is a tuberculous history in the family.—DOCTOR MARSON, in *The Lancet*.

Hallux Valgus.—At a recent meeting of the Société de Chirurgie of Paris, Delvet reported a case of double hallux valgus in a

woman aged thirty-three, in which, after removal on both sides of the inflamed serous sac, he resected with gouge and mallet the abnormal projection of the head of the metatarsal bone, and finally fixed the contracted tendon of the extensor hallucis to the inner side of the toe by an artificial sheath of fibrous tissue and periosteum taken from the metatarsal bone. The double deformity was corrected, and the patient is now able to walk without any trouble or difficulty. In some remarks on this case Kirmisson pointed out that complete resection of the head of the first metatarsal bone has the disadvantage of impairing the internal arch of the foot, while resection limited to the proximal end of the first phalanx is an illogical procedure, as in hallux valgus the lesions affect exclusively the metatarsal bone. Simple section of the extensor tendon will not suffice, as contraction of this tendon is an absolutely secondary condition and not the immediate cause of the deformity.—*British Medical Journal*.

Congenital Luxation of the Hip.—In children of less than three years, good results without operation, although sometimes obtainable, are so rare that one may truthfully say that there is no cure except by operative means. I have operated on the hip nine times for dislocations—five for congenital, and four for luxations following coxalgia,—and all the cases recovered. I have had no relapses, and they can always be avoided except when the head of the femur is too much atrophied or the neck is absent, or when the head is located on a plane much anterior to the femoral diaphysis. In the first case the head is too imperfectly held in the cavity to remain, and in the second it is impossible to replace the head in the cotyloid cavity without great internal rotation. These two kinds of cases do not amount to over four or five per cent. The anterior incision between the middle gluteal muscle and tensor fasciæ latæ is advised, and not the classic one of Langenbeck or of Hoffa. The children in six to ten months walk perfectly or almost so.—CALOT, in *Revue de Chirurgie*.

A Valuable Trio.—Doctor Chas. Henry Brown, editor *Journal of Nervous and Mental Diseases*, says: "We like combinations, and if diligently sought for, reinforcements of valuable remedies by simply bringing them together is next to marvellous. No one will possibly disagree upon the practical and happy relationship, for the relief of many reflex disorders from nervous or fermentative

dyspepsia, of sodium bromide, powdered charcoal, and Taka-Diastase. A little dose of the bromide, a good fair dose of the charcoal, and Taka-Diastase in moderate quantity, viz.:

R Sodium bromide, 4 drachms.
Wood charcoal, 2 drachms.
Taka-Diastase, 90 grains.
Syrup ginger, 1 ounce.
Water, to make 4 ounces.

Dose, a teaspoonful (one drachm), well diluted, before eating.

Spontaneous Cure of Malignant Tumor of Bladder.—Schuchart, surgeon to the Stettin Hospital, has lately reported a cure of malignant cystic disease, undergoing retrogressive changes and incomplete resorption, after a simple incision into the bladder. The patient was cachectic, fifty-seven years old, with arterio-sclerosis; had a tumor of the bladder as large as the egg of an ostrich. On making a supra-pubic cystotomy the bladder was found transformed into a vast neoplastic mass, quite inoperable. The pelvic tissues were infiltrated. Finding that it could not be enucleated, the wound was partly closed and a drain inserted. On the second day free pus began to discharge through the opening. This was followed later by masses of stringy material, until after a month the entire tumor had come away and cure was complete. — *Deutsche Medicinische Wochenschrift*.

A Suggestion in Ether Administration.—When ether is mixed with twice its volume of a bland, light preparation of liquid petroleum, and thoroughly nebulized with a suitable atomizer, it is absolutely unirritating, and even with a much smaller proportion of oil is practically so. The oil, by preventing irritation, avoids not only immediate reflex disturbances, but all direct injury to the mucous membrane. A few puffs of the mixture from an atomizer directly into the nostrils before administering ether in the usual way, results in the anæsthetic being easily taken, without stage of excitement, and with practically none of the common annoyances incident to its use. In this way it is hoped that the objectionable features of ether anæsthesia, which are to be attributed directly or reflexly to its irritation of the mucous membrane, can be lessened or prevented. — *Philadelphia Polyclinic*.

Kola.—A note of warning has been sounded as to the use of the kola nut by physicians in general, and the indiscriminate use of the same by those who would temporarily in-

crease their strength even at the expense of a profound constitutional weakness. It seems to be a fact that while these different stimulants like tea, coffee, cinchona, and coca, and last but not least the kola nut, may seem to produce little or no deleterious effect upon the African and South American Indian, the last mentioned is death to the white race in general, and more especially to that branch of the white race whose nervous system is most highly developed. Kola, like coca, has been heralded far and wide as a muscular stimulant, entirely devoid of deleterious effects, but the truth is that carelessly used it is a viper whose sting is death. — *North American Journal*.

Potassium Nitrate for Burns.—Potassium nitrate acts especially as a refrigerant. As it becomes dissolved in the water it produces a lowering of the temperature of the liquid of from five to nine degrees Fahrenheit. If a burned hand or foot is plunged into a basin of water to which a few spoonfuls of the nitrate have been added, the pain ceases rapidly; if the water becomes slightly heated, the pain returns, but it is allayed as soon as a fresh quantity of the salt is added. This bath, which is prolonged from two to three hours, may bring about the definitive disappearance of the pain and even prevent the production of blisters. The application of the compresses also exercises the same influence. By this means the pain is allayed and cicatrization takes place without delay. — *Revue Médicale*.

Guarana in Diarrhœa.—At a recent meeting of the New York Pædological Society, Doctor Land detailed a case of diarrhœa in a girl eight years old, who was subject to frequent attacks of loose movements. When first seen she had been suffering three or four days and had received enough home and proprietary remedies to thoroughly complicate the case. After giving dulcamara, veratrum album, arsenic, and phosphoric acid, without benefit, the stools were observed to be bloody, with bright green flakes intermixed, when *Paullinia sorbilis* was prescribed. Marked and immediate improvement followed, and the patient was soon discharged cured. — *Medical Century*.

Vertigo.—It will be found, in many cases classified under the category of incurable aural affections or tumors of the brain, that the vertigo is the result of a want of equilibrium of the ocular muscles, and will disappear after restoration of that equilibrium.

The physiology of the production of vertigo in heterophoria is easily understood. During waking hours the weaker muscles are inordinately innervated to maintain balance and prevent diplopia, and it is this excessive expenditure of nerve power and also the occasional lapse into diplopia with immediate recovery that is responsible for the vertigo. While treatment of aural vertigo is habitually unavailing, the prognosis of ocular vertigo is particularly favorable.—BOYER, in *Annales d'Oculistique*.

Pneumonia in Infants.—

R Ammonium carbonate, $\frac{1}{2}$ grain.
Fluid extract eucalyptus, 2 minims.
In a suitable vehicle.

The main feature of the treatment, however, consists in the faithful use of cold applications to the back and chest every four hours. At the same time with the cold packs, small doses of strychnine and alcohol may be given. Beef broth and milk make up the diet.—*Polyclinic*.

Electricity in Uterine Fibroids.—This agent is especially indicated in bleeding fibroids in women approaching the menopause; in all inoperable cases; in incipient fibroids in women over forty years of age; in all bleeding fibroids of the smooth interstitial variety which have no symptoms but hæmorrhage; in all cases (not accompanied with pelvic pus-accumulation) which refuse to have an operation.—DOCTOR MARTIN, in *Journal of the American Medical Association*.

New Treatment for Epilepsy.—Put thirty or forty grains of the leaves of *Adonis vernalis* in about five ounces and a-half of boiling water; filter, and add from 150 to 170 grains of potassium bromide and two or three grains of caffeine. Of this mixture give from four to eight teaspoonfuls a day, in water or sweetened milk. In this way I have produced an entire cessation of the attacks, or a diminution in their intensity and frequency.—BEXH-TERREFF, in *La Presse Médicale*.

Creosote.—Possesses undoubted power to relieve the fœtor of the expectoration in foul-smelling cases of bronchiectasis and phthisical cavities. In small doses (one to two minims thrice daily) it promotes appetite, and tends to stimulate the powers of digestion. Beyond this it is not found that it modifies in an appreciable manner the ordinary course of phthisis.—*Medical Record*.

Tœniæfuge.—

R Croton chloral, 140 grains.
Powdered gum tragacanth, 3 grains.
Powdered gum Arabic, 8 grains.
Syrup, 40 drops—or enough to make mass.

Make forty-eight pills, of which four constitute a dose, to be given in the evening at bedtime, an equal number being given the next morning on an empty stomach. An hour after breakfast give a mild purgative.

—*La Médecine Moderne*.

Pain in Puerperal Sepsis.—For the pain in puerperal sepsis the external use of heat or cold is to be recommended, the choice depending upon the wishes of the patient. Drugs belonging to the coal-tar group are harmful, since they mask symptoms, produce depression, and decrease the desire for food.—*Medical Standard*.

Aphrodisiac.—

R Powdered vanilla, 45 grains.
Powdered canella, 45 grains.
Powdered mace, 15 grains.
Powdered black pepper, 5 grains.
Powdered nux vomica, 5 grains.
Powdered iron carbonate, 4 grains.

Make ten powders. One after each meal.

—LUTAUD.

Turpentine as a Remedy for Mumps.—Turpentine, in the usual doses, according to the age of the patient, is a specific against mumps. The patients quickly recover, without metastasis to other organs.—HOLDEN, in *Massachusetts Medical Journal*.

Value of Dulcamara.—This drug best meets prominently the bad effects of getting wet in damp weather. It is also useful in diarrhœa and rheumatism, or the urticaria that accompanies a diarrhœa during a damp spell.

Rhinitis.—It is claimed cod-liver oil and hypophosphites will do more toward the cure of rhinitis in scrofulous children than any form of local applications.—*Medical Brief*.

Anæsthetic Tents.—Soak laminaria tents for eight days before using, in a mixture of: Ether, 65 parts; iodoform, 10 parts; cocaine (pure), 5 parts.—LEFOUR.

Strangury.—Warm applications to the perineum; hot sitz-bath; belladonna and opium suppositories.—H. C. WOOD.

Medical Progress.

YEAST-CELLS AND MOULDS.—It was not to be supposed that the astonishing announcement made by Jörgensen and Juhler as to the development of yeast-cells from the *Aspergillus oryzae* would go unchallenged; but it must, at any rate, be a satisfaction to these investigators that the inquiry has fallen into such skilled hands as those of Messrs. Klöcker and Schiønning, both assistants in the famous Carlsberg Laboratory. These gentlemen have repeated in every conceivable manner the experiments of Jörgensen and Juhler, and have even greatly extended the scope of their original observations; but in no single instance have they obtained any evidence of the development of yeast-cells from moulds. It would appear that too much weight has been given to mere microscopical evidence, and not sufficient attention bestowed upon the acquisition of pure cultures. Perhaps the most interesting efforts to decide this knotty question were those investigations made with various fruits growing in a natural condition on trees—investigations suggested by some early work of Pasteur, and also Chamberland, published in 1879. As is well known, moulds and yeasts are present side by side in large numbers on various fruits, such as plums, cherries, grapes, etc.; and Messrs. Klöcker and Schiønning determined to prove, if possible, that their simultaneous presence is a mere coincidence, and not evidence of the development of yeast-cells from moulds. Comparative examinations were therefore instituted of numerous fruits, some of which were simply gathered from the tree, whilst in other cases they were only examined after having been carefully excluded from the outside air for some time by enclosing a small fruit-bearing branch in a specially constructed glass case. Thus, for example, on none of the plums protected from the surrounding air could any yeast-cells be discovered, although moulds were present in abundance, whilst on as many as fifty per cent. of those exposed to the air, yeast-cells were found along with the moulds. Messrs. Klöcker and Schiønning contend that in these glass cases they offered the moulds the most natural and favorable opportunities for the production of yeast-cells which could be devised, but they failed in every case to make their appearance. Doctor Jörgensen himself, it is only fair to add, appears to be somewhat baffled by the nature of his observations, and in his most recent communication on the subject frankly confesses that this elaboration of yeast-cells from moulds must at present be regarded as a pro-

cess in which chance appears to play an important part, and the circumstances attending which we are yet quite unable to master!—*Nature*.

MANUFACTURE OF DRUNKARDS AND DRUG-GARDS.—In common, doubtless, with the profession in this country generally, I have received an invitation to take debentures in a certain company that is pushing two wine compounds. I must confess to a feeling of humiliation when I read that six thousand testimonials have been received in favor of these two drinks. Certainly it would appear that gratitude is a feeling easily provoked in the profession by a liberal supply of samples.

Why should malt, iron, coca and bark have their "wines"? The answer should be, not that it is necessary for these foods or drugs to be given with wine, but because the public are glad of any excuse for taking stimulants or narcotics. Under the cloak of "tonic and dietetic" wine compounds, many people are led into the habit of secret drinking. And what shall we say if the profession by testimonial-giving and prescribing help on this undesirable state of things? Surely when wine is needed we can order it in whatever kind and amount we think fit, and the drugs in a separate prescription. Why jumble them up together? There can be no doubt that immense injury accrues to the community by the reckless use of coca, malt, and other made-up wines, for the road to the habitual use of actual narcotics from drugged wine-taking is as easy as it is fascinating. It would be well-nigh impossible to obtain a trustworthy account of the manner in which the slaves to narcotics were led into their bondage, but the bare possibility that we may, by prescribing these compounds, forge the first link of a chain that will later bind the victim down, should make us realize our responsibility. A chemist who was formerly one of a large staff of dispensers at one of the well known co-operative stores gave me a startling account of the enormous sale there of narcotic drugs, especially to women. Some of the customers had weekly supplies, such as three dozen one third-grain powders of morphine; ninety one-third-grain pills extract of opium; and another twenty-four sulphonal powders. One lady had periodically two ounces of morphine solution for hypodermatic use.

What, then, should be the attitude of the profession in this matter? That we should strictly refuse to have any commercial interest in the class of preparations here referred to: That we should prescribe wine

and drugs separately, and in specified quantities: That in prescribing narcotics we should order them in such a form as to make it difficult for the patient to obtain the drug in large quantities.—DOCTOR CHAPMAN, in *The Lancet* (London).

SEXUAL RELATIONS OF THE THYROID GLAND.—Fischer, in a recent paper, comments upon the relations between the thyroid gland and the female sexual organs, which have so often been discussed since attention was directed to the fact that goitre predominates in women—that from eighty to ninety per cent. of the cases occur in females. Myxœdema, moreover, is met with in women in eighty-six per cent. of the cases. The same is true of Graves's disease, and in respect of sclerodermatic processes the proportion as between women and men is three to one. Swelling of the thyroid gland has been observed in puberty and at the commencement of the menstrual period. Freund found an increase of this gland during pregnancy in forty-five out of fifty cases, and Wolfler has described a case in which during pregnancy the trachea became soft and the goitre increased. Goitres increase during delivery, and decrease again some days afterward. Graves's disease also, if it develop during pregnancy, improves after delivery. It is doubtful whether the thyroid gland becomes larger during lactation, but in the climacteric period it undergoes atrophy. Goitre and phthisis seem to be incompatible, and phthisis is but rarely observed in the subjects of hypertrophied thyroid gland. Fischer next refers to the numerous theories as to the ætiology of goitre: Morgagni supposed there was a communication between the thyroid gland and the larynx, and believed the trachea was moistened by this gland and phonation thereby facilitated. Some authors have suggested that this gland was a regulator of the brain, but Freund considers that it is in connection with the genitals through the sanguineo-vascular system. In the lower animals extirpation of the thyroid gland causes atrophy of the sexual organs, which is due, according to Hofmeister, to shriveling of the ovarian follicles. Hens with hypertrophied thyroid glands also lay larger eggs than those which have atrophied thyroids. Post-mortem examination of a girl, aged eight years, who was affected with myxœdema, showed that both ovaries were of the size usual at two years of age, and that they contained only a few follicles. The symptoms of Graves's disease depend in some degree on the condition of the patient's sexual development.—*The Lancet*.

AN INTERESTING CASE OF PREGNANCY.—Mrs. —, a delicate-looking country-born European multipara, became pregnant in December, 1894. In February, 1895, she had a "miscarriage." Some clots came away, accompanied by severe pain, and she felt unwell for several days afterwards, during which time there was a discharge as of ordinary menstruation. After this she did not see her menses again, but noticed the abdomen and breasts remained "full." In the following September she was confined with full-term twins! The labor was natural. The woman states that the occurrence which took place in February, the abortion, was not the first of its kind, for she had previously aborted three times, always between the second and third months. There is no history of syphilis or injury of any kind. What is the inference? It is that she became pregnant in December, 1894; that between December and February there were three embryos in her uterus, one of which she aborted in her third month, probably from "habit." Unmistakably the twins she gave birth to in September, 1895, were nine-month fœtuses, for the abdominal and mammary swelling, it seems, did not disappear with the mishap which took place in February. The wonder is, how did the uterus, in February, manage to expel only a third portion of its contents and not the whole! Could the woman be telling lies? I hardly think so, for her husband corroborates all her statements. Or again, could there have been a double uterus, with an embryo in one which was aborted, and two embryos in the other?—*Correspondence of Indian Medical Record*.

[This is a highly interesting case. The probability is that the woman did not abort one of the triplets, and as, from habit, the uterus tried to expel its contents but failed, clots passed but no fœtus, and in the "fullness of time" she gave birth to her allotted progeny and that turned out to be a twin birth.—*Editor Indian Medical Record*.]

OSTEOMYELITIS AND THE EBERTH BACILLUS.—The bacteriological study of osteomyelitis has recently been actively pursued, and a French physician not long ago published statistics of ninety cases in which he found the *Staphylococcus aureus* seventy times and the typhoid bacillus four times. Particular interest attaches to the connection of Eberth's bacillus with osteomyelitis, since Orloff, Fränkel and others have shown that this organism is frequently found in osseous tissue, whilst of especial importance is the discovery made by Chantemesse and Widai, that it has a

particular predilection for the marrow of bones. Osteomyelitis may declare itself not only during the course of typhoid fever, or during the period of convalescence, but also a long time after the recovery has been completed. That a connection is possible between typhoid fever and subsequent manifestations of osteomyelitis was first indicated by Keen in 1878; but for the more precise information which is now at our disposal on this subject, we are indebted to Chantemesse and Vidal. In one most interesting case of osteomyelitis, the typhoid bacillus was found in the marrow of the left tibia, six years after the patient had recovered from an acute attack of typhoid fever. Most careful tests were made, including Pfeiffer's ingenious serum reaction, to correctly diagnose the bacillus found as that of typhoid.—BRUNI, in *Annales de l'Institut Napoli*.

sublingual salivary gland was also swollen and its surface was of a dark red color and covered with a network of sinuous veins; the tumor was decidedly hard and cartilaginous. The lymphatic glands of the chin were also quite swollen, the surrounding cellular tissue infiltrated, and the skin reddened. She also complained of headache, sleeplessness, thirst, loss of appetite, and great weakness; no elevation of temperature. The growth had gradually developed during six to eight months. A pseudo-neoplasm was suspected, and an incision exposed a salivary stone one centimeter in thickness and three in length; the concomitant symptoms then soon disappeared. The stone was unquestionably due to a deposit of lime-salt from the saliva, which element is present in large quantity in the saliva of certain subjects.—*Deutsche Medicinische Wochenschrift*.

SUPERSTITION ABOUT BABIES.—In some parts of Great Britain, people bind up the infant's right hand that it may have riches when grown.

The Manx people believe it will dwarf or weazen a baby if any one steps over it or walks around it.

In Yorkshire a new-born babe is placed in a maiden's arms before being touched by any one else, in order to insure good luck.

A baby is considered lucky in Scotland if it handles its spoon with its left hand, and it will be perfectly happy and successful if it has a number of falls before its first birthday.

In the "Borders," when a child is taken from a house for the first time, it is given an egg, some salt, and a small loaf of bread, and occasionally a piece of money, to insure it against coming to want.

In Paraguay a book, a piece of money and a bottle of liquor are placed before the infant the day it is one year old, to ascertain its bent in life.

In Germany it is considered necessary that a child should "go up" before it goes down in the world, so it is carried upstairs as soon as born. In case there is no upstairs, the nurse mounts a table or chair with the infant.—*Everyday Folklore*.

DIAGNOSIS OF SALIVARY STONES.—Lindemann relates an interesting case of a salivary stone observed in a woman of fifty years, who thought the neoplasm of a malignant nature. The tongue, especially in its left half, was enlarged and presented deep marks of the teeth and œdematous margins; the left

OSMOSIS.—Before the laws of osmosis, deduced from the final osmotic pressure, freezing-point, etc., can be applied to the explanation of biological problems, it is necessary to determine whether the initial rates of osmosis of substances bear constant ratios to their final osmotic pressures, and whether the presence of proteid substances in the solutions affects the initial rate of osmosis. I have found that the initial rates of osmosis cannot be determined from observations of the freezing-points of solutions, and that proteid substances, even when present only in minute quantities, markedly diminish the rate of osmosis. The evidence in favor of the occurrence of osmosis and increased filtration as the effective factors in causing the increased outflow of lymph that is seen after the injection of a crystalloid into the blood, must be weighed against the evidence that osmosis and increased filtration alone cannot account for the observed phenomena.—BARLOW, in *Journal of Physiology*.

TRIPLET LABOR AND ACARDIAC TWIN.—In a multipara, at the sixth month, there was hydramnion, causing extreme abdominal distention; pains set in, and over ten pints of liquor amnii escaped; severe flooding ensued, and labor had to be hastened. By aid of the sharp hook a very œdematous male infant was extracted, though not without extreme difficulty. A round body lay in the way. Hæmorrhage continued, so labor was again hastened, the hand being introduced into the uterus; a second bag of membranes was ruptured, and a living female infant ex-

tracted with perfect ease. The round body remained. The sharp hook was once more used, and the body, which was thus extracted, proved to be an œdematous, ill-developed fœtus nourished by the placenta with which the œdematous male fœtus was connected. The uterus being emptied, the hæmorrhage ceased. The patient passed through a normal puerperium.—FRIENDENBERG, in *The Lancet* (New York).

SUPERNUMERARY BREASTS.—Goldberger reports a case of polymastia in which the supernumerary mammary glands, two in number, were situated, one in the right axilla, and the other about three inches below the left axilla. At the time of their greatest development they were each as large as a goose's egg or an ordinary apple. Neither one of them was provided with a nipple. Liquid taken by means of a hypodermatic syringe from the right supernumerary breast was ascertained by means of a microscopical examination to be milk. The author states that among the many cases of polymastia previously recorded there have been only four in which the supernumerary glands have been destitute of ducts opening on the surface.—*Medical Recorder*.

LARGE ABDOMEN IN INFANTS.—The large tumid abdomen, that is so harmless in appearance, is a sign of the utmost import in the diagnosis of the disorders of nursing babies. When it is found we may be sure of the existence of a gastro-intestinal condition which, for clinical reasons, I propose to name the chronic gastro-intestinal dyspepsia of nursing children. On autopsy, an elongation of the bowel that is more or less pronounced will be observed. Recent unfinished histological researches show that this elongation is associated with a chronic enteritis, accompanied by a chronic gastritis. The large flabby abdomen, therefore, most surely denotes the existence of a chronic gastro-enteritis.—MARFAN, in *La Semaine Médicale*.

TUMOR OF THE MEDIASTINUM.—A young woman complained of heaviness of the head and spasmodic cough, without expectoration; later was also a sufferer from increasing dyspnœa and cyanosis of the face. Examination of chest revealed anteriorly an area of dullness which extended from the sternum right and left as far as the axillary line.

Within this zone no respiratory murmur was audible, and the heart-sounds were heard as though through a layer of cotton. The larynx and trachea were apparently normal. A tumor of the mediastinum was diagnosed, which, from her age and the rapidity of its evolution, was probably a lympho-sarcoma. The necropsy confirmed this wholly.—*La Semaine Médicale*.

INTESTINAL ANTISEPSIS.—This is not a matter of typhoid-fever patients only, and, now that the glamor with which Bouchard invested the subject is fading, we are getting to hard common-sense views on the question. Two facts—the two grains of wheat in the two bushels of chaff—which you can winnow from the whole complex literature to date about antiseptic medication, are: First, that in such a disease as cholera, in which the germs thrive and grow directly in the bowel, it is a failure; and second, the impossibility of destroying experimentally germs in the bowel by any antiseptic administered *per os* in harmless doses.—OSLER.

SYMPATHETIC GANGLION IN OVARY.—The vessels of the ovary have a peri-vascular network of nerve-fibres. A ganglion lies in the middle of the zona vasculosa, made up of structures bearing the characters of sympathetic ganglion cells; their processes surround the very convoluted vessels in the neighborhood, breaking up into delicate plexuses. I have not been able to actually trace any processes passing from the ganglion cells directly into the follicular zone, but believe they enter that part of the ovary as the plexuses above described on the vessels.—WINTERHALTER.

TAPPING OF OVARIAN CYST.—Such operation is justifiable when there are urgent pressure symptoms that cannot be immediately relieved by operation; when for any reason operation is impossible; when the cyst complicates pregnancy (in order to allow the labor to take place).—PENROSE.

DRIBBLING OR DROOLING OF INFANTS.—Healthy infants never dribble or drool. This condition is due either to disorders of the digestive apparatus or to obstruction of nasal respiration, but is altogether unconnected with dentition.—DE SILVERA, in *Lo Sperimentale*.

The Medical Age.

VOL. XIV.

DETROIT, AUGUST 10th, 1896.

No. 15.

Original Articles.

INSTRUCTION OF THE HOSPITAL OR AMBULANCE CORPS IN THE UNITED STATES AND STATE SERVICES.*

BY DOCTOR C. H. ALDEN.†

My purpose is to give some account of what is being done for the instruction of the hospital and ambulance corps of the United States and the State services, of which I think too little is generally known, believing that such an account will afford in itself valuable, perhaps the best, suggestions as to defects in our present work and its improvement. Incidentally I shall offer some remarks on present and proposed methods of instruction.

First let me invite attention to two very interesting and instructive articles on this subject read before the last meeting of the Association, which appear in the transactions. One is on the Instruction of the Hospital Corps of the U. S. Army, by Major H. S. Furrill, Surgeon, Fort Riley, Kansas, treating specially of the work of the Hospital Corps Company of Instruction at that post; and the other on the Instruction of the Hospital Corps at Military Posts, by Captain W. C. Borden, Assistant Surgeon, Fort Snelling, Minnesota, pointing out the importance of a definite system for such instruction. These articles are both highly interesting and instructive, and will, I am sure, receive well merited attention.

My topic naturally divides itself into two distinct parts: first, the instruction of the hospital corps in the U. S. Army, and then of the "hospital corps," "ambulance corps,"

or "hospital and ambulance corps," as it is variously called, in the State services.

The United States service and State services are so different in many of their features that it is impossible to carry out the same system of instruction for the hospital corps in both. These differences have been somewhat too much lost sight of. Nothing would be easier, at first sight, than to take the orders and regulations, organization, equipment and instruction of the Medical Department of the U. S. Army, which may be presumed to have been evolved by experience and proved of value, and adopt them for the State services. But it cannot be done, for the conditions in the two services are quite dissimilar.

In the first place, as to the organization of the hospital corps. While the single corps adopted for the U. S. Army is preferable to the regimental detachment in most respects, especially in securing better and more uniform discipline and instruction, it may not always be possible to secure it in the service of a State. In a large State some of the regiments may be very widely separated and never brigaded together. A single hospital corps organized and instructed in the most populous city could not conveniently furnish detachments for them. A regimental organization, which should of course be independent of the line, would therefore seem to be the only one practicable in some instances.

Again, the position in which the hospital corps man is placed in relation to his duties, and the conditions under which he performs them, are widely different in the two services. In the State service the occupation upon which he is dependent for support necessarily occupies almost his entire time, and he is only able to give up an occasional day now and then, and some of his evenings perhaps, or at most a week or so in summer for camp duty, foregoing, possibly, his well earned an-

* Read before the Association of Military Surgeons of the United States.

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nual vacation. The United States hospital-corps man of course devotes his entire time to his work, and is available at any time for instruction and drill. With the difficulties under which the State hospital corps rests it is a matter of surprise that its members accomplish so much and have attained in some States to such a high degree of proficiency. It is due to the fact that the men who are selected for privates of the hospital corps in the service of the State, being often druggists, dentists, medical students, and even graduates of medicine, are as a rule superior in intelligence to those of like grade in the United States service, and enter into their work with a spirit and energy which perhaps would be less manifest if their whole time had to be devoted to it. I have been informed by the Surgeon General of one of the States that in one of the organizations of his service, the men originally detailed not being entirely satisfactory, six practicing physicians were secured to fill their places. Of course, nothing of this kind could be possible in the United States service.

Again, the duties required in the services are quite different. The hospital-corps man of the U. S. Army habitually serves at a military post, and his work is chiefly in the post hospital. On the Indian frontier, and especially in Arizona and Texas, he goes on scouts and expeditions, and at all posts participates in the annual practice marches.

Within the last few years only has the United States man had any experience in connection with suppression of riots, sharing this last duty with his comrade of the State service. This riot duty is the chief active work of the State forces, and hard and trying work it is at times, as papers read before the Association have shown. The men of the State service go into camp once a year, but not always so often, for a week, participate in occasional parades, and attend at the armories for drill and instruction. The United States hospital-corps private must be an all-round man; not only must he be a good nurse and skilled in first aid, but he must be able to cook, to have some knowledge of tools, of gardening, and of the care and use of animals. The pharmaceutical and dispensing and all the clerical work, of which there is a large amount, must be done by the

hospital corps, the more intelligent and specially trained men being selected for these duties. Much of this sort of work is entirely unnecessary for the hospital-corps men of the State services; their duties do not ordinarily require it, nor do they have the time to acquire it: military discipline, prompt obedience, proficiency in litter and ambulance drill and in first aid to the sick and wounded, are all that is needful for their efficiency. We see, therefore, the instruction of United States and the State hospital-corps men cannot be considered together.

Referring first to the United States service: Those of my hearers who have been in the Medical Department of the Army for ten years or more will undoubtedly remember the difficulties and disadvantages attendant upon the care of the sick and wounded and the administration of the hospital under the old system of employing men who were temporarily detailed from the line, such as the difficulty of securing good men, the uncertainty of retaining them, etc. They will agree with me, I think, that in no particular has the establishment of a separate hospital corps in 1887 been of greater advantage than in the opportunity given for the instruction of its members, by which more skillful and reliable assistants were provided for the Army Medical Department.

It was mainly for the purposes of instruction, particularly of men entering the hospital corps directly from civil life, that the hospital-corps companies of instruction were established in 1891. A secondary but most useful purpose was the formation of depots from which instructed men could be drafted in cases of expeditions, riot duty, or other sudden emergencies. The first company was formed at Fort Riley, Kansas, under the direction of Major J. Van R. Hoff, Surgeon, to whom great credit is due for starting a new scheme and putting it into successful operation. A second company was organized under Major Valery Havard, Surgeon, at Fort D. A. Russell, Wyoming, whose skill and interest in the work soon put it into good working order. This school of instruction for the hospital corps was, in the fall of 1893, transferred to Washington Barracks, D. C., in order that the Eastern Department might be more conveniently supplied with

trained men. Each company consists of six or seven non-commissioned officers and about thirty men.

The interesting article of Major H. S. Turrill, Surgeon, who succeeded Major Hoff at Fort Riley, and who is still in command of the hospital-corps company there, read at the last meeting, and to which I have already referred, renders an extended account of the course of instruction at that school unnecessary. A brief summary, taken chiefly from a late report, will therefore answer our present purpose.

The school year is divided into two terms, but as men arrive at and depart from the school one at a time all through the year, a regular curriculum is of course much interfered with.

The following are the courses of instruction: Setting-up drill and the manual of the carbine and pistol are first taught, especially to those who have been recruited from civil life. Major Turrill considers that the use of arms is desirable as a part of the setting-up exercise, and argues forcibly that a knowledge of their use is very important for men liable to serve on Indian campaigns and who may find it necessary to defend themselves and their patients. Instruction by lectures is given to all in first aid, anatomy and physiology, nursing, elements of pharmacy, care of instruments, etc. All the men receive also at least one month's practical instruction in nursing in the wards of the post hospital; they are taught to cook the soldier's ration, to ride, and to care for horses, and are given daily instruction in first aid—which includes litter and ambulance drill as well as the treatment of wounds, accidents, and emergencies. In this part of the course an effort is made to carry out the conditions as nearly as possible as they would exist in actual service or on the battle-field; and the men are practiced in pitching and striking tents, and familiarized with the details of camp duty. After several months, four usually, of this instruction in common, those who show aptitude for special duties are specially trained therein. The two dispensaries at the post are utilized for more extended instruction in pharmacy; some men are specially instructed as cooks, others as clerks in the preparation of official papers,

others in the use of carpenter's and other tools, and others in ambulance-driving. Instruction is held for five days in the week and lasts from 8.30 A.M. to 4 P.M. each day. Saturday the regular weekly inspection of men and quarters is made.

Field work, which the presence of a considerable force of mounted troops stationed at the Cavalry and Light Artillery School renders practicable, is a special and important feature of the instruction at Fort Riley. During the summer, when target practice is going on, a field hospital is formed on the ground and every hospital-corps man serves at least a month therein. Of special importance are the combined manœuvres and sham battles held every fall, and for which the large military reservation with its greatly diversified surface gives excellent facilities. The hospital corps accompanies each contending force, the lines of relief are organized, and the full activities of the Medical Department on the battle-field are illustrated. Nowhere else than at Fort Riley could this imitation of actual service conditions be made as well, and full advantage of the opportunities is taken.

The Company of Instruction at Washington Barracks which was organized in 1893 when that at Fort D. A. Russell was discontinued, has been in charge of Major J. K. Corson, Surgeon, and his successor Major G. W. Adair, Surgeon, the immediate command being held first by Captain J. M. Cabell, Assistant Surgeon, and then by Captain Frank R. Keefer, Assistant Surgeon. The officers connected with the Company have been most painstaking and faithful, and the results have been highly satisfactory.

The courses of instruction given at this school are essentially the same as those at Fort Riley, but a few differences may be noted. The setting-up exercises, specially for the recruits from civil life, but in which all are practiced to some extent, include calisthenics, the school of the soldier, but no drill with arms. This last is unnecessary, as men from this school are not likely to have to serve with a force operating against Indians. Litter and ambulance drill and first aid are prominent features of the course. The latter is treated with great fullness, and the men are made familiar by practical exer-

cises with every variety of accident and injury and the appropriate treatment. Bandaging is taught thoroughly. The men are familiarized with the articles on the supply table of the Medical Department, with instruments and their proper care. All are given some instruction in handling the more common medicines and in the more common operations in the dispensary, and all acquire a knowledge of simple cookery. Each receives instruction in nursing in the wards of the post hospital. Recitations are held in first aid and nursing. It should be noted that first-aid instruction involves the elements of anatomy, particularly of the osseous and circulatory systems. Men especially desirous and capable of advancement are taught advanced pharmacy, preparations of dressings, assistance in operations, and the making out of official papers. Those showing aptitude for culinary work are given special instruction in the kitchen.

The facilities for practical instruction in field work are not as great at Washington Barracks as at Fort Riley, but the Company is fully instructed in pitching and striking tents and other camp duties; and the annual detachment of a part of the garrison for target practice and on marches is utilized for field work. The daily instruction extends from 9 A.M. to 4 P.M. for five days of the week.

There are some points in connection with the instruction at the hospital-corps companies at Fort Riley and Washington Barracks which it is well to consider. Some little misapprehension exists, apparently, on the part of medical officers in regard to this matter. Too much is expected of these schools, from a want of consideration of the conditions, and not enough credit is given for the excellent work they have done and are doing. It may seem to some that the schools have not done all that is possible in training the men in the corps—that there are not as many hospital-corps men at the military posts that have been trained at the schools as there might be. As a matter of fact, over four hundred men have been trained at the schools since their establishment in the fall of 1891, scarce four and one-half years ago. That a greater number of men have not been sent to the schools is due

to several causes. In frequent instances the medical officer makes application for the transfer of a private from the line to his hospital-corps detachment, instead of having the vacancy supplied from the nearest company of instruction, because he knows the applicant and thinks he has some special qualifications for the place. Such applications are usually granted. Again, in the case of cooks and gardeners, it is impossible to supply the demand, especially for cooks, for all the ninety garrisoned posts. Some men are trained as cooks at Fort Riley and Washington Barracks, but a large number have to be transferred directly from the line. Then, too, men who have served long and faithfully in the hospital corps are re-enlisted although they have not been trained with the hospital-corps company.

Moreover, the great distance of some of the posts from the schools, and the necessity of economizing the transportation appropriation, render it impossible to supply some posts from the companies. One might say that it would cost no more to send a hospital-corps man to a distant post than to send a recruit to replace the line private who was transferred to the hospital-corps detachment there, and this objection would be valid but for the fact that the regiments are now recruited largely from the region in which they are stationed. There are eight posts 2000 miles distant, nine 1500 miles distant, and twenty-two 1000 miles distant, from the nearest company of instruction.

Disappointment has sometimes been expressed that men more highly trained in nursing are not turned out from the schools, but it must be remembered that the facilities for a training school such as are attached to the large civil hospitals in cities do not exist at military posts. The hospitals at the schools are not large, and the beds are comparatively few, and no great variety of disease and injury is found in them. Even if the facilities existed, it would hardly be possible to keep men as long under instruction as they are held at a civil training school.

It should be borne in mind also that the instruction at the hospital-corps companies cannot be complete. It is unfair to expect that the man received at the post from the school shall be an accomplished nurse or

cook and equal to any emergency, and that no more instruction or drill is necessary. Unless the surgeon of the post continues this instruction by daily patient, painstaking effort, the man will inevitably deteriorate. The instruction given at the post is actually the more important, as it can be continued indefinitely. If the surgeon wants a good assistant, it is largely within his power to make one. Then, too, the rotation of men of the hospital-corps detachment in their work so that all may become instructed, at least to a useful extent, in nursing and in cooking, is too much neglected. A surgeon sometimes calls urgently for a nurse or cook on account of the death or discharge of his skilled man. This difficulty would have been avoided if he had placed another man under instruction who could take the vacated place.

I desire to commend to your attention the very suggestive article by Captain W. C. Borden, Assistant Surgeon U. S. Army, on "Instruction of the Hospital Corps at Military Posts," read at the last meeting. The importance of methodical and systematic instruction at the military post is there well set forth. I cannot quite agree with that writer in the elaborate programme he gives, though it offers valuable suggestions to the instructor. He would seem to have met with much more intelligent men in the hospital corps than it has been my fortune to command, and he proposes to carry the theoretical instruction in anatomy, physiology and other branches to a much further degree than has been found possible in my experience. My belief is that the instruction to the average hospital-corps man must be by object lesson chiefly. It must be plain, simple, and practical, or the instructor will not keep his attention and the instructions will not be remembered; and it is useless to tell him about the processes of nutrition, secretion, excretion, and the like. The instruction of those ambitious of promotion can be carried further, but these men are few. Captain Borden advises, if I understand him correctly, that a definite programme shall be laid down by higher authority which shall be obligatory upon all surgeons of posts in the instruction of their detachments. I doubt the advisability of this. The climatic conditions vary so much at military posts in our country, the size of detachments and the na-

ture of their duties vary so greatly, that an order of daily instruction that would suit one post would be inapplicable at another. There is a little too much disposition to think that in military affairs every difficulty can be met by publishing an order. Certainly there is now full authority under existing regulations for the surgeon to institute and carry out a system of instruction adapted to the special circumstances of his post and the capacity of his men. Is it not better to stimulate individual effort on the part of medical officers and give them freedom to carry out individual ideas and plans? May there not be a distinct advantage in the instruction of the detachment at a post being varied by the coming of a new medical officer? A medical officer who does not take interest enough in his duties, in the welfare of his patients, and in the orderly administration of his hospital, to instruct his men, is not likely to do it satisfactorily under the compulsion of orders.

In turning now to the instruction of the hospital corps in the State services, which I have noted is necessarily unlike that required in the United States service, I do not feel myself fitted or called upon to say exactly what this should be. The medical officers of the State services who have direction of this matter are thoroughly competent to decide what is best for themselves. The State medical officers include among them some of the most able surgeons and general practitioners in the country, many of them of far greater professional reputation than their colleagues of the United States service, and it needs only for them to attack the problem of the best instruction of their hospital corps with the energy that has made them successful in private life to accomplish all that is needed.

The best plan will be to give you a summary of what is being done, as far as I have been able to learn, in the several States in regard to the instruction of the hospital or ambulance corps. The example of the methods pursued in the older States and in those whose National Guard and Medical Department have been more highly organized will be the best indication of what it is possible to do and the best incentive to those who have not for various reasons done all they can in this regard to bring their own service

up to the high standard that has been attained by the most advanced.

I know well the difficulties and hindrances that often, and indeed in most cases, attend the development of the Medical Department of the State services. There is the difficulty of obtaining legislation putting the Department upon a proper footing. Many States, especially the agricultural States, are very reluctant to create and support adequately a National Guard. Then, too, there is almost always great difficulty in obtaining funds for material for outfitting the Medical Department. It does not follow, therefore, because a State's medical service has not reached the desired standard of efficiency, that its medical men are not alive to its wants or that they are deficient in energetic efforts to improve it. Persistent, well directed effort will, however, in the end be successful.

My information in regard to the Medical Department of the State services is derived partly from letters received from the Surgeons-General and other medical officers of the respective States and partly from the statements compiled in the Military Information Bureau of the War Department, published in 1895, on "The Organized Militia of the United States."

The organization we are considering is called "hospital corps" or "ambulance corps," sometimes "hospital and ambulance corps," but the duties are the same.

A corps independent of the regiments exists in five States, namely: Maine, Massachusetts, New Jersey, the District of Columbia, and Georgia.

In thirteen States and Territories there is a hospital corps attached to each regiment and forming part of its organization. These are Vermont, Connecticut, Rhode Island, New York, Pennsylvania, Ohio, Illinois, Indiana, Iowa, Minnesota, Missouri, Oregon, and Arizona.

Virginia has a hospital corps in one regiment only.

In Michigan, Wisconsin, Kansas, California, and Texas, men are detailed for hospital-corps duty at the encampments only.

In New Hampshire a hospital corps has been authorized, but I think not yet organized.

I will take up the States in which most attention has been paid to the instruction of the hospital corps—geographically.

The separate hospital corps of Maine dates from 1891. Monthly drills are held throughout the year, and weekly ones for some time prior to the annual encampment. On these occasions lectures are delivered by medical officers. The annual encampment gives opportunity for more extended field work.

To Massachusetts probably belongs the credit of having had the first hospital corps, here called Ambulance Corps, it having been organized in 1885, two years prior to the establishment of such an organization in the U. S. Army. It is an independent corps, consisting of one captain, two lieutenants, and fifty-eight men. Captain Myles Standish, who commands the Ambulance Corps of the Massachusetts Volunteer Militia, and whom we all know as an active member of this Association, read a very interesting paper on the organization, equipment, instruction and drill of his corps, at the meeting in 1894. I need not, therefore, go into the subject at length, but wish only to invite attention to the methods of instruction. At the evening meeting for instruction, held weekly during the winter I believe, the following programme is carried out:

1. Ten-minute quiz conducted by a sergeant.
2. A twenty- or thirty-minute lecture upon some appropriate subject.
3. A practical demonstration of some splint or bandage by a private, who has prepared himself beforehand.
4. Military drill, including stretcher work, for one-half hour.

During the summer encampments, field work, such as improvising stretchers, ambulance work, etc., is practiced.

In Rhode Island weekly instructions of the regimental hospital corps are held, lectures being given one week and demonstrations in first aid and litter drill the next. The corps is newly organized, but great interest is being manifested.

In Connecticut fortnightly lectures of an hour each, on anatomy, physiology, hygiene, emergencies, etc., are given by the regimental medical officers to the members of the hospital corps. Each lecture is followed by one

hour's drill in litter exercise, ambulance drill, and first aid. At the summer encampments the men are drilled every day.

In the National Guard of the State of New York the hospital-corps men (who are regimental) are instructed by the surgeons in simple anatomy and physiology, first aid and treatment of emergencies, the action of the more common remedies, this instruction being given by weekly lectures and demonstrations from October to June. A special feature of the work in this State is the examination held at the close of each season, those most proficient receiving a medal. This examination must be passed each year.

The hospital and ambulance corps of the State of New Jersey, and in fact its whole Medical Department, seem to be organized, I may note in passing, very closely on that of the United States Army. Its Regulations are largely taken from the Army Regulations. Weekly drills are held and instruction given by lectures and demonstrations on the usual subjects, the men being examined from time to time as to their proficiency.

I have no detailed information as to the instructions given in the hospital corps of the National Guard of Pennsylvania, but it may fairly be presumed, from the high degree of efficiency of the Guard and its Medical Department and the many able medical officers connected with it, that this duty is zealously performed. As we are here in the chief city of the State, we may hope to hear something on this subject during the present meeting.*

In Virginia there is no organized hospital corps, but one has been formed in the First Regiment at Richmond, and Major Kuyk, its Surgeon, has done excellent work in its formation and instruction. In addition to the usual branches on which instruction is given to the detachment, the outlines of physical

diagnosis and the properties of the more commonly used medicines are taught. Major Kuyk wrote me in regard to a scheme for an Annual Encampment of Hospital Corps from different States with a view to comparison of methods of instruction, competitive drills, etc. Such an encampment would undoubtedly be of great service. The Major informed me that he hoped to be present at this meeting and to present his plan in person.

Georgia has an independent hospital and ambulance corps of twelve stewards and thirty-four privates. Information received from the Surgeon-General of the State indicates that excellent work has been done in organizing this corps. The printed regulations follow those of the U. S. Army as far as practicable. The usual drills and instruction are given.

The hospital corps of the State of Ohio is regimental, and the instruction given by the surgeons is essentially the same as in most States. I am informed that several of the members of one regimental hospital corps are regularly on duty at the Cincinnati Hospital Ambulance Station. This suggests a method of attaining proficiency that might be carried out in other cities where there are large hospitals.

The Indiana hospital corps, now regimental, will probably soon be consolidated into one corps. A peculiar feature is that by law its members must be physicians, medical students, or pharmacists. It is evident that the instruction of the corps is well cared for, but I have no details of the methods pursued.

Although Wisconsin has as yet no organized hospital corps, it is evident from reports received that very considerable attention is paid to the instruction of men detailed at the summer camps, and even of the squads attached to the local companies at their homes, as I am informed that some of these squads are made available to give relief in cases of fires, etc.

The hospital-corps men of the Iowa National Guard are attached to regiments, and some at least are instructed by lectures semi-monthly by the medical officers, and drilled weekly by the stewards. The summer encampments afford opportunities for more practical instruction, of which full advantage is taken.

* NOTE.—From information received after this paper was read, it appears that the instruction of the hospital corps in the State of Pennsylvania is as thoroughly carried on as circumstances permit. In the larger cities where there are full regimental organizations regular courses of instruction by lectures as well as drills are given to the corps by medical officers. Outside the larger cities, where it is impracticable to get the men together except at the annual encampment, their instruction is necessarily limited to this occasion.

By a recent law Minnesota has a hospital corps of men detailed from companies but independent of them. They are given regular drill and instruction, more particularly at the State camp grounds, at which there is a well organized Hospital Department.

Kansas is one of the States I have referred to in which the development of the Medical Department of the National Guard has been much hindered by want of legislation and appropriations. Major de Niedman, Surgeon, First Regiment, and his colleagues, are entitled to great credit for their work under difficulties; and instruction, especially in camp, is faithfully carried out with appliances largely contributed by their own means. The men are taught cooking also, as the Kansas militiaman subsists on his ration.

The State of Missouri has a regimental hospital corps containing a number of graduates in medicine. As a matter of course they must be well instructed and efficient.

The Surgeon-General of Texas informs me that, while there is no regularly organized corps, detailed men are thoroughly instructed at the encampments.

I cannot close this necessarily imperfect sketch without drawing attention to the great benefit this Association of Military Surgeons has been both to the national and State services. I have reason to know from my correspondence that great progress has been made since the establishment of this society, due in part, I have no doubt, to the information imparted at our meetings and by its published transactions.

Washington, D. C.

PAINS IN THE LUMBAR REGION.

BY SAMUEL WOLFE, A.M., M.D.

Whole volumes and innumerable shorter articles on the subject of headache have appeared in medical literature, while backache has received but little systematic attention, yet the symptomatic importance of the one is probably quite equal to that of the other. There would seem to be some advantage in looking at both generically. While the danger of confounding a symptom with a disease may attach to this form of study, it is the most certain way of clearly separating the two.

Taking all the pains that may occur in the lumbar region, we may relegate a certain proportion immediately to the parts affected. Diseases of the lumbar portion of the cord and of its coverings, of the nerve-roots, and of the spinal and sacral bones, and the joints, ligaments, muscles and tendons connected with them, all have this symptom, locally expressed, more or less in common. Direct painful disturbances of the nerves of these parts also occur.

Other lumbar pains belong to diseases in the neighboring organs of the pelvis, the abdomen, or even the chest. Here the effects of pressure on the nerve-trunks or plexuses, of extension of inflammatory processes, and of vascular disturbances, are felt.

A third class of these pains connects itself with general systemic diseases. This particularly applies to a class of affections which are of recognized infectious nature, such as the acute fevers. But it also includes other conditions, where the seat of the morbid process is general or uncertain, and in which, while the pathology is not so satisfactorily established, the tendency is to recognize a causative or resultant toxin. Neurasthenic and hysterical states are instances of this class.

Under the first variety we have to consider neuralgia, which is nearly always connected with pains radiating into the abdominal walls, into the genitals, or into the perineum, affecting therefore the ilio-hypogastric, ilio-inguinal, or genito-crural nerves.

Neuritis, if it occurs at all, is likely to be of that variety due to pressure on the nerve, or to involvement in an inflammatory focus, from which points the inflammation may ascend or descend along the fibres of the nerve or its sheath.

Lumbago is a term which has been given such wide latitude that it may include almost any painful condition of the lumbar region. It should be definitely restricted to that condition where, from exposure to cold and wet, or from injury to the muscles by overstrain or violence of some sort, there results a more or less sudden onset of decided soreness and tenderness, restricting movements, and producing a condition of slight or decided tonic spasm of the muscles involved. There is generally a history of a repetition of attacks

in the same individual in cases where the cause is not distinctly traumatic; there is a relation either to myalgia or to myositis. Authorities do not make this very clear; it is probable that in some cases we have one process, and in some the other.

The joints of the vertebral column become frequently invaded, in rheumatism. The cervical and lumbar regions suffer more often than the dorsal, although this discrimination may be more apparent than real, owing to the comparatively greater range of motion in the neck and lower back. The entire length of the column is sometimes affected. The cases are extremely few in which the disease remains limited to the spinal joints, and this fact greatly facilitates the diagnosis.

Traumatic arthritis needs only to be mentioned. The cause is generally too palpable to be overlooked.

The affection known as spinal irritation, or rachialgia, occurs as the result of moderate traumatism, or as a part of the hysterical or neurasthenic condition. Traumatic cases generally have the tenderness and the spontaneous pain more definitely limited to distinct regions, and are less variable in degree, than the other neuroses. In these we find now one, then another, region more susceptible to pressure, although generally the greatest sensitiveness occurs in the neighborhood of the fifth and sixth dorsal and about the second or third lumbar vertebrae. To the writer it would seem that in hysterical cases the affection may be regarded as having a close kinship with the hysterical joint as found in other members. Writers explain this pain as being a neuralgic condition of the nerves either of the spinal membranes or of the vertebral joints, or both. This is quite tenable for traumatic or purely anæmic cases, but somewhat more problematical for the hysterical.

Caries of the vertebrae may be almost painless, or give rise to very severe distress. The degree of involvement of the nerve-roots by the pressure upon them, or by participation in the inflammation, will determine the results.

In meningeal and cord inflammations there is generally a degree of pain felt at the seat of the disease or in its immediate neighbor-

hood, while another increment radiates from this locality to more distant points. This latter is apt to be the more distressing and is due to the involvement of the sensory roots; in some cases, and especially in cord troubles, it takes the form of a "girdle pain," and is then indicative of the level of the disease. In a certain proportion of cases the pain of organic cord disease is referred almost entirely to the lumbar region in a general way, regardless of the limitation of the malady. Thus the affection may involve the whole length of the cord, and yet pain be present only over the sacrum or in the loins.

Tumors of the vertebrae or cord give rise to no painful symptoms, except such as depend on pressure or inflammation. No characteristic peculiarities would therefore be likely to exist.

When lumbar pain is more indirect in character, of the so-called reflected or transferred variety, the mechanism may be a true transference, or may come about by neuritic changes arising in the nerves which extend to this region. These may occur as the result of pressure or from infection in connection with an inflammatory or purulent focus, the process extending along the fibre or the nerve-sheath.

The condition known as "irritable testes" may produce spontaneous pain in the loins only, the testicle being extremely tender but otherwise not painful. In fact, this would seem to be the more common condition.

Hæmorrhoids and other rectal disturbances often cause more distress from lumbar pain than from that felt at the seat of the disease. Constipation in some subjects causes this symptom in a marked degree.

The constancy of pain in the lower part of the back in uterine disturbances of all kinds needs only to be mentioned categorically. Ovarian pains, too, are quite common here, although the crest of the ilium is the more frequent seat. In ovarian tumors and psoas abscess we naturally expect pressure symptoms, and of these lumbar pains are among the most frequent.

The pains of parturition, which are so constantly referred to the back, seem to me to be largely due to an intense cramp-like contraction of the muscles which fix the lower segments of the spinal column. The effect of

pressure on the nerve-trunks may be admitted, but this is more particularly present when the head is well down in the pelvis and causes radiating pains into the thighs. In thin women we can easily study the action on the vertebræ, which is to fix them successively from above downward, as the pain proceeds. When nerves are actually torn or severely bruised we have symptoms which belong to the post-parturient period as well as to the time of delivery.

Floating kidney, nephritis, renal calculi, and pyelitis, are all productive of lumbar pains. In the early stage of a renal colic the pain is in this region, while later in the passage of the obstruction it descends into the inguinal region.

I recall a very severe case of pneumonia, in which the severe lumbar pain during the first few days, with comparative absence of any connection with the respiratory movements and of other symptoms directing attention to the chest, came near misleading me in my first attempts at a diagnosis.

Lumbar pains arising from general diseases are frequent in neurasthenia, hysteria, anæmia, and other debilitating conditions.

When neurasthenia is the result of sexual excesses, this lumbar or rather sacral pain is especially apt to be a marked symptom. While more or less constantly present, there occur acute exacerbations accompanied by a sense of great depression, and sometimes by vertigo or nausea. In these cases the knee-jerks are absent or much diminished, which is in marked contrast to the usual increase of this phenomenon in neurasthenia generally; they are especially increased in the variety known as cerebraesthesia, and here, instead of backache, pressure and pain about the cranium are apt to be obtrusive symptoms. Lumbar pains, as well as some other of the symptoms of neurasthenia, are probably of lithæmic origin.

The backaches of hysterical subjects are frequently of the nature of spinal irritation or rachialgia.

Spinal anæmia manifests itself largely by lumbar pains which are aggravated by the upright or vertical position, while the contrary is very generally the case where debility arises from other causes than a pure anæmia.

In all the specific fevers, pain in the back occurs as a part of the general *malaise*, and the same may be said of headaches. In some of these disorders there is nothing that strikes the observer as specially disproportionate between the headache and the backache. In others again, one or the other rises into such prominence by reason of its severity and constancy as to become of high diagnostic value. Thus the persistency and severity of headache in typhoid, and of backache in smallpox, are both available in this direction. Smallpox has the latter symptom especially marked, but it is also quite prominent in typhus and relapsing fever. While it is a severe symptom in influenza, dengue, yellow fever, septicæmia, and pyæmia, there is so much headache here too that there is no notable disparity between the two, and the general aching and soreness also keep pace with them. There is therefore no special diagnostic significance in these cases, beyond the fact that all together they point to an infectious toxæmic process.

Beyond this fact—that they depend on irritation arising from the presence of deleterious organisms or their products in the economy—it is hardly safe to venture an opinion as to the mode of their production. If I were inclined to speculate in this direction, I would take capillary emboli as a starting-point.

1701 Diamond Street,
Philadelphia, Pennsylvania.

MALARIA VERSUS MALAQUA.

BY DOCTOR E. B. WARD.

In a recent number of the *Journal of the American Medical Association*, Doctor Bachmann tells us all about malaria (bad air) which should be termed *malaqua* (bad water).

It is a bewildering delight for those of us who have fought the *mal* in Michigan for forty years to be told at this late hour just how it is, and why. The learned Doctor's words come like a revelation, and we can only wonder—and still the wonder grows—why our puny wit was so slow we couldn't see it, say nothing about feeling it semi-occasionally. He says:

The germ, which is of soil origin, is strictly a protozoön and reaches its highest development in low moist ground with a favorable temperature.

Surrounded by proper soil conditions this protozoön passes from one stage of life into another with considerable rapidity; so that in the present stage of our experimental knowledge it is impossible to identify it; nor is it probable that by culture we shall be able to produce the accepted Laveran germ outside of the human system.

As a rule the potable water in malarial districts is derived from driven wells not over twenty-two feet deep, in soil with clay or some impervious substrata; which water is generally cool and palatable, often sparkling and clear, but more frequently turbid. This water is filled with an incalculable number of these germs in all stages of development, and if it is used as potable water they find their way into the system through the alimentary canal.

The protozoön passes through so many forms or stages of life that in some stages it is light enough to float and be transported by the moist air of low grounds, but in this state it is comparatively harmless. It is not until the surface water is used that the real mischief begins. From personal observation I know that the use of pure deep-seated water affords immunity against malaria.

Evidently the Doctor's experience lay along a river course, because when he speaks of "soil twenty-two feet deep" and then a clay substratum, he uses a term that may be applied to all kinds of excrement; whereas we of Michigan, which was the home of malaria, would get from a driven well twenty-two feet deep a fair supply of pure water—it having been filtered through a "soil" of sand, clay, and gravel. But the average drink-supply of the earlier settlers consisted of open wells, stoned up, and surmounted by a platform, curb, and buck—hence "the old oaken bucket;" and the animal wonders those wells sometimes produced were marvellous to behold. Everything that could creep, crawl, or fall into the well and not be missed has been fished from its dark waters when the annual "cleaning" took place; and all this time we were ignorant of the fact that this water was causing all the illness.

I speak of *all* the illness literally, for, barring a little "bowel complaint" in the hot months of autumn and an occasional pneumonia in the winter, it was all malarial in some form. Typhoid fever was unknown, and consumptives came from "York State" and, shaking off their phthisis, grew bilious, healthy, and happy. We older heads have seen this repeatedly, and have traveled day after day and night after night without a wink of sleep—except in the saddle or as we

dropped down at the house of a patient and slept an hour—for weeks in succession. Have started out on tours of visitation for the sick that were endless. Have visited neighborhoods where there weren't well ones enough to take care of the sick, dosed out their medicine, put their *malaqua* where they could reach it, and gone on to the next! Think of it! Put the poisoned chalice to their very lips, as it were, to wash down its antidote! And this from an infamous, not to say infernal, ignorance of the fact that that very water—in addition to all the dead and decaying animal matter which we knew it usually contained—held in suspension the deadly "protozoön," which was too fat to float and too lazy to crawl, but which simply soaked down through the earth and poisoned water.

You will very naturally suppose that we could have caught on, so to speak; but wells were often very differently located, and 'twas all the game, o'er hill and dale, in sand or swail, the—what's its name—got there just the same; and in the absence of the bacteriologists and germicidists, how *could* we?

The deadly protozoön was as nothing to us, for we wot not of it, and consequently believed not in it, and if we had we should have believed a lie, that we might be professionally damned. The malaria that we had to deal with came not from water or even from marsh miasm, but from the *upturning of newly cleared land*; upland, no matter how high its location, was an ever-present source of the germ—whatever it is—which produces malarial poisoning. In later years we could tell families living just east of a "new breaking"—the prevailing winds being in the west—that during the coming autumn they would be smitten with malarious disease in some form, without the shadow of a doubt, no matter what they drank; and they were. There were no exceptions. It was a common saying in those days that any one drinking a pint of buttermilk and sitting in the sunshine half an hour could have a "shake" of the ague; but this is not to the point.

What I wish to remark is that our malarious diseases did *not* come from *malaqua*, for people could use water from the same well year after year and not have malaria; but break up a piece of new land immediately west of the house, and you could depend

upon their having malarial disease of some sort with as much certainty as you could count upon the rising and setting of the sun. Hence the more "breaking," the more malaria; the less breaking, the less malaria; until, as the land came more and more under the influence of the "breaking-up team," so agues and chill-fevers subsided until the land was all subdued, when malarial disease ceased entirely, and it is as rare to hear of a case of ague in this very land now as in the city of Detroit, New York, or the Great Sahara.

It was not my intention to notice this hypothesis of Doctor Bachmann, it was so fresh, so exasperatingly false in its premises and conclusions; but having read it, finally it graveled me into making a plain statement of facts as we found them in Michigan, which had more malaria to the square inch in its early days than any other spot on earth. The "river malaria" of the West—with which the writer is somewhat conversant—is a different article perhaps, and it is not within the scope of this screed to argue as to its origin, but to lay down the simple fact that in this State, under favorable circumstances, people would contract malarial poisoning, water or no water.

Laingsburg, Michigan.

SUPERFŒTATION AND SUPERFECUNDATION.

BY A. L. BAILEY, M.D.

It is with a great deal of hesitation that I present a subject that has received the attention of the most learned in the medical profession for years, and with so little satisfactory results as to whether or not it represents a fact. By superfœtation is meant the formation of a fœtus after the lapse of one or more menstrual periods following a previous conception. Superfecundation we understand to be the fertilization of two or more ova at the same menstruation by two different acts of coition—a theory that is pretty well agreed upon by authors, as the evidence in support of it cannot be very well set aside. Cases have been reported in which a woman has given birth to twins bearing evident traces of being the offspring of fathers of different races: thus, a white woman giving birth to

twins, one white, the other black; or a negro woman having two children at one birth, one white, the other black. A Creole woman of Brazil brought into the world at one birth three children, of three colors—white, brown, and black—each exhibiting features peculiar to all three races. There are also cases reported of simultaneous uterine and extra-uterine fœtation which, I presume, will not be questioned.

There is a wide difference of opinion as to whether or not superfœtation ever occurs. The question as to a woman conceiving again when a fœtus already exists in the womb, is the one I propose to discuss, and at the same time present a case that not long since came under individual observation.

During the last six years I have delivered four women of twins and two of triplets—a very uncommon thing, I am informed by many old practitioners. The first two cases were normal—all the infants girls. In the third case (twin boys) I found, upon examination, a fœtus about the size of a fourth-month pregnancy; this I delivered, whereupon the vertex of a large, full-term child appeared, with bag of waters intact. The small child was wrinkled, flattened out, and the cord shriveled up like a string; the placenta was anastomosed with the larger one and showed calcareous degeneration of the whole side whence was given off the small cord.

The triplets were in one instance boys, in the other girls. The first of the male children was a breech presentation, born dead before I arrived; the other two lived for several months, then died of intestinal trouble. The girls were born about two hours apart, and lived about the same length of time; they were of seven months' gestation.

Lusk says:

That impregnation can take place at two periods distant from one another, must be regarded as an inadmissible hypothesis until physiologists shall have succeeded in demonstrating, in a single instance, by the presence of corpora lutea of different ages, that ovulation ever occurs during pregnancy.

Playfair, after discussing the objections to the possibility of superfœtation from the standpoint of mechanical obstruction or ovulation, remarks:

The reasonable conclusion, therefore, seems to be that, although a large majority of the supposed cases are explicable in other ways, it cannot be admitted that superfœtation is either physiologically or mechanically impossible.

Meggs, in the fourth edition of his work, says nothing upon the subject under this head, but under another title expresses the opinion that conception "does not necessarily put a stop to the periodical development of ovarian ova, nor to their maturation and fall."

Bedford, after speaking of the objections urged against superfœtation, continues:

These objections, therefore, in opposition to the doctrine of superfœtation, are not valid, but when we take into account the important and undeniable evidence on record, irresistible and therefore conclusive that cases of this description have actually occurred, both in the human subject and in animals, superfœtation must be recognized not only as within the range of possibility, but as having been more than once practically illustrated.

Palmer (Cincinnati) expressed himself not long since in this wise:

Superfœtation is an occurrence not often possible until toward the end of the third month of pregnancy, when the decidua cavity becomes spontaneously closed by an adhesion of two layers of the decidua, the decidua vera and decidua reflexa.

Taking into consideration the foregoing quotations, the illustrative cases cited, and my own experience, I am obliged to believe that a second conception *is* possible after one or more menstruation periods have passed over, or at least up to such time as the decidua cavity becomes closed.

The theory that ovulation does not occur during pregnancy has not been proven, nor does it seem possible that it can be, since the opportunity to illustrate or observe the occurrence, or definitely determine the results of pregnancy upon the ovary, cannot be had. It is well known that some women menstruate during a part or the whole of the pregnant state, and as menstruation and ovulation occur almost simultaneously during the non-pregnant state, why may this coincidence not be possible, and even looked for, during the pregnant state? I do not believe the position of Lusk should be accepted on the strength of the dictum that superfœtation has not been proved or demonstrated by physiolo-

gists; lack of demonstration does not prove the negative true. It is impossible to demonstrate definitely how union between the ovum and the spermatozoon takes place, but we know it does. Cases are frequently reported, and by wholly reliable men, that cannot be explained except on the hypothesis of superfœtation. Must we wait until these men can demonstrate corpora lutea of different ages during the pregnant state—and when the conditions are such that it cannot be done—before we believe in superfœtation? The cessation of ovulation is no doubt the rule during pregnancy, and the cause of there being so few cases of superfœtation.

The objection to the theory is again explained by the filling up or covering over of the openings of the tubes by the decidua, thus hindering the passage of the spermatozoon or the descent of an ovum. But the decidua—reflexa and vera—do not become closed before the end of the third month, and until this occurs there is left abundant opportunity for the male organism to pass upward. The mucus-plug theory, which assumes that spermatozoa cannot reach the uterus, is no longer accepted, since this plug is alike present in the pregnant and the non-pregnant uterus—it presents no obstacles.

My own experience is embodied in the following:

Mrs. B—, primipara, aged 27, American born, was taken in labor at 6 P.M. on Tuesday. I saw her for the first time the next morning at 4 o'clock, when she had regular, moderately strong pains. Digital examination revealed a half-born fetus presenting, vertex first, which was at once delivered, and found to be of the third or fourth month of gestation. It was plump, apparently normal in every way, and for a few minutes exhibited signs of life.

On further exploration I felt another fetus presenting by the vertex, the bag of waters intact. The latter was ruptured, and delivery completed. The child was large, and proved to have reached full term. While running my finger around the head of child before the bag of waters ruptured, I discovered the attachment of the small placenta; just within the internal os could be felt its lower border. This was expelled at once after the birth of the second child, but the larger placenta was almost all retained within the uterus, and was released only with difficulty.

I consider the foregoing a case of superfœtation, from the following facts: The small child was viable, plump, healthy, and unmistakably of only three to four months' development; its length was four and a half inches, and the bones of the skull were as they appear at this stage of gestation—indeed, the entire head and face bore out this conclusion. I also made sure the uterus was not double, both by examination at the time, and again after involution was complete. Subsequently, also, I delivered this patient of a second, full-term, healthy child, and again took especial pains to convince myself that her uterus was single and normal in all respects.

I neglected to mention that this lady did not miss a menstrual period up to the fifth or sixth month. It could not be that the small child was "blighted," as every indication pointed to its being alive and healthy.

Chesaning, Michigan.

HIGHER ENLIGHTENMENT—II.

BY C. C. MAPES.

Since the publication of the article on "Higher Enlightenment *versus* Age of Consent,"* numerous criticisms, favorable and otherwise, and many inquiries, have been received, which prompt me to make another effort in the same direction.

It is an astonishing and deplorable fact that many seemingly intelligent people still contend that children at an early age should not be educated in matters pertaining to sexual morality, physiological being, procreative functions, and relation to each other, etc.; that their adequate enlightenment in this direction, if not altogether impossible, could be productive of no beneficial results. In other words, the least said about such matters the better for all concerned, and especially for the young—they should know nothing about such subjects; at all events they will ascertain the principal features at an age sufficiently early for their own good, without instruction from parents.

It is beyond intelligent comprehension—and I endeavored to make this plain in my

former article—why parents in this supposedly enlightened age will cling with such tenacity to ideas, traditional and otherwise, based upon nothing more tangible than—"My grandmother did not so educate my mother, nor did my mother enlighten me, therefore why should I teach my child anything about *how she was born, why she was born, what her relations are to the opposite sex, what her procreative functions are, and what they mean, their uses and abuses, the difference between herself and her male companions,*" etc. Verily, then, the parent should also be educated. Even in this modern age parents do not seem to realize that the future safety of their offspring depends largely upon a competent early enlightenment in sexual morality.

It is only necessary to call attention to flashing headlines in any issue of our secular dailies—"Seduced under promise of marriage;" "She loved not wisely but too well;" "Murdered his mistress;" "Well dressed infant left on the doorstep;" "Betrayed and then murdered;" "Suicide of a beautiful young girl—examination reveals that she was in a delicate condition;" "Robbed of her virtue—too much confidence;" "She preferred death to disgrace," *ad infinitum, ad nauseam*—to prove the absolute necessity for higher education in the line indicated.

It is unreasonable to suppose that a young girl would place herself in the path of this veritable cyclone of dangers if she possessed a full knowledge of their significance. Moreover, with a more comprehensive understanding on the part of the male—the "fiend," "brute," etc., as often rightly called—there would be some modification of passion, and trusting, confiding femininity would be less exposed to such grave dangers. The gravity of these responsibilities seems little understood or appreciated by the masses, as evidenced by the tenacity with which they cling to ignorance, and their persistence in maintaining the prevailing erroneous standard of sexual morality.

In commenting upon my previous contribution an eminent physician said: "Beyond peradventure there is need for much improvement. Your ideas are based upon correct principles, but cases should be graded; rules are not applicable alike to all classes." I reiterate that my former remarks *do* apply

*MEDICAL AGE, vol. xiv, No. 4.

in greater or less degree to all classes, from the highest to the lowest. Numerous instances might be cited where a higher standard of sexual morality could have been beneficially applied to members of the *élite* society; where some of its prominent buds have blossomed in ignorance of sexual morality, the laws of procreation, and their relation to the opposite sex; where without *orange flowers* they have experienced the pangs of premature parturition—commonly and for obvious reasons styled “rheumatism,” “sprained ankle,” “malaria,” etc., or where for the same reason they have paid the fashionable watering-place (?) a two months’ visit. Do we need further proof that sexual morality, or higher enlightenment, might with equal propriety be applied to those in the better walks of life, as well as among the middle and lower classes?

While the ideas here expressed may be considered too radical, I cannot but think it would be a thousand times better to freely discuss sexual matters “in open court” than to allow society to subjugate truth and encourage and perpetuate ignorance as has been done. That “nasty-niceness” which prevails in what is called “polite society” should be subjugated rather than the truths of human genesis, laws governing our procreative functions, our physiological being and sexual morality. We must differentiate between ignorance and innocence, which terms are too often used synonymously.

In a very able article on “The Economics of Prostitution,” Doctor Hutchinson* makes a few statements bearing directly upon the question of higher enlightenment, from which I quote the following paragraphs:

The attitude of so-called “morality” and religion toward this magnificent impulse [sexual] is characteristic. The burden of their childish song is “Thou shalt not.” They have much to say in reprobation, but very little in approval, of a process whose dignity and beauty they are utterly incapable of appreciating, and whose magnificent perfection they haven’t the brains to comprehend. And because it dares to defy their petty authority and disregard their edicts, priest and philosopher alike proclaim it an outlaw, and a war of extermination is set on foot. This soon collapses, and they decide to tolerate it. As a last stab, they unite in stigmatizing it as a low “animal” appetite, and that alone was enough

to damn it for centuries. But the term carries no condemnation with it nowadays. On the contrary, the fact of an instinct being shared by the lower animals is good presumptive proof that it is of great benefit and value.

We have reason to thank God that the sexual instinct, one of the noblest, holiest, and most elevating that stir our bosoms, is an “animal” one, and, consequently, far older and stronger than we are. It is backed by the life of all ages, and throbs with all the pulses of nature. Its worst, and I had almost said its only, perversions are human, and the result of “reason” and convention.

But this is not the only ban under which this wonderful faculty of ours is laid. Not only is its exercise to be barely tolerated as a concession to weak, sinful human nature, but its very existence is to be ignored as completely as possible; and an imitation instinct known as “modesty” has been invented and developed for that special purpose: its principal function is to deny the existence of the very sentiment which called it into being. That it is a virtue of the first water, all sorts and conditions of men unite in testifying; but it has one peculiarity so singular as to provoke mention—it begins just where innocence ceases.

Between these two influences our grand sexual functions have gradually come to be regarded as positively disgraceful in themselves, and the parts concerned in them as something to be absolutely ashamed of. Even in scientific nomenclature they are styled the “*pudenda*”—“Things one ought to be ashamed of.” As to the sexual appetite, the most important and overmastering impulse which moves the race: instead of its excesses alone being reprobated, it has become a sentiment the moving of which no moral man would dare to avow openly, and which a modest woman would die rather than confess to her nearest friend. The impulse has been degraded so low that its mere possession is sinful. Is this a natural, healthy, rational attitude? No, nor a moral one either. This feeling alone produces the very excesses it was invented to check.

“Sympathy, affection, fidelity, sacrifice—indeed, all those noble traits included under the term *altruism*—spring from the reproductive instinct.” (Drummond.) Instead of being subversive of all morality, it is the very foundation stone of it. With its feeblest and blindest flutterings, *altruism*, the regard for others, is born.

Unselfishness, sacrifice, is no recent development due to “revelation,” but goes back to the *amœba* itself. From fission to parturition, reproduction is self-sacrifice. And from the results of the process, from the care and nurture of “these little ones,” has grown every atom of our morality, from earth-buried foundation stone to heaven-soaring pinnacle.

True manhood, true womanhood, in the highest sense, are impossible without reproduction; while as for love, sympathy, philanthropy, sense of duty, it has simply created them. Even the much lamented power of the sexual instinct is simply

**American Medico-Surgical Bulletin*, 1895.

proof of the overwhelming importance and value of the function to the race, and the man or woman who can suppress it entirely is less than human rather than more, and will surely become inhuman sooner or later.

We all lament the sad lack of home training so obvious in the children of to-day, but we forget that the lack of training suffered by the American parents of to-day on account of the scarcity of children is equally hurtful. This is the age of untrained parents, and they need training as much as the children. The training of children works both ways; like mercy, "it blesses him who gives as him who takes," and no man's or woman's education is more than half finished without it.

And yet we constantly hear this magnificent sexual instinct of ours shrieked at and berated as if fornication, adultery, prostitution and rape were its chief and commonest results. Truly "the evil that men do lives after them; the good is oft interred with their bones." The instinct (like all other natural ones) is at least a hundred times as powerful for good as for evil.

Let us consider now for a moment the attitude of etiquette and morals—too often interchangeable terms—toward the sexual function, in the light of the importance of the latter. There is only one word to describe it; it is simply idiotic.

Not only the sexual organs themselves, but even the whole of the body which is covered by the clothing under which they are hidden is forbidden to be mentioned or even referred to in "polite" society. According to its canons, the entire body from the neck to the tips of the toes is a sexual organ. The origin of this lascivious refinement is obvious, for the mention of the regions which happen to be merely geographically adjacent to the forbidden parts, and which no pure-minded or well bred person would dream of associating with them, such as the chest, the abdomen, the legs, is as severely censured as that of the parts themselves. To such an insane pitch is this "nasty-niceness," as Aunt Tabitha calls it, carried, that we have probably all heard reference to the "limb" of a piano, or the "limbs" of a pair of dividers.

While there is some doubt as to the true nature of much that passes for personal modesty, there is none whatever in regard to this society variety. *It is a reticence born originally of a diseased imagination or a guilty conscience, discreditable to the individual displaying it and disgraceful to the society which exacts it.** Instead of being, as it mincingly affects to be, the *very pink of refinement, it is the essence of vulgarity.** "Honi soit qui mal y pense," as the chivalrous King Edward said when he picked up a garter dropped by one of the ladies at his court.

When we come to the *absolute ignorance* of their most important function which this taboo entails upon many of our boys and girls, the case becomes a *most serious one.** How many of our boys have the true meaning, uses, and dignity of the sexual

*organs delicately but clearly explained to them before the age of puberty, by their fathers; or how many of our girls by their mothers?** I fear scarcely ten per cent. The first knowledge most of them have of this wonderful subject is from the *filthy lips of some vulgar servant or prurient older schoolmate.** Is it any wonder that driven by natural curiosity and the powerful impulses of awakening sexual consciousness, and ashamed to inquire of those who ought to be their natural instructors, they resort, in an ignorance as pitiable as it is deplorable, to experiments upon themselves, upon one another, nay—even upon the lower animals? Truly, *ignorance is the very mother of vice.**

But the most fatal result of this extraordinary attitude of both morals and etiquette is the extent to which the sacred obligation of exercising the reproductive function is destroyed.

The freedom of *intelligent, refined conversation upon sexual subjects ought to be broadened,** it should no longer be considered indecent to speak plainly. Most of the flavor of obscenity which hangs about the discussion of sexual matters is due to this very restriction. No excuse or danger should be left for boys and girls on the ground of ignorance of this important function. In other words, intelligence, altruism, true refinement, should be promoted by every possible means, and nature will continue to assist us by emphatically discouraging their opposites.

The last paragraph is exactly in accord with my ideas, and had his article been known to me at the time I prepared my former contribution I would gladly then have quoted the words with due credit. The author emphasizes in a forcible, convincing manner the importance of the procreative functions, also the early education and understanding as to their proper significance on the part of both male and female.

The question has been repeatedly asked: "How can I educate my child in these matters? I realize their importance since having given the subject mature thought, but am at a loss to know how to begin." I can only say each case is a law unto itself, and it is impossible to formulate any hard-and-fast lines by which to govern. I would suggest, however, that the first lessons be not deferred until the children have gained erroneous knowledge, if I may be allowed the expression, elsewhere; that they be taken into the garden, among the plants and flowers; into the orchard, among the budding or blossoming trees; into the fields or yards, among the

*Italics mine.

*Italics mine.

domestic animals; from each a valuable lesson may be deduced. Let them study the bud as it progresses, bursts, and unfolds its tiny petals. Explain how and why the seeds grow when planted in the soil. Let them witness the procreative act between their animal pets, and tell them what it means, using as a comparison the observations you have made upon plant life. Let them follow with watchful care the pregnancy of their female pet to term, explaining to them the different stages of embryonal development. And finally let them witness the female undergoing the pangs of parturition, giving them the correct reason for everything in relation to cause and effect, answering their questions frankly, simply, and truthfully, although at the time they may appear of no material consequence. Remember that the child does not reason with the same degree of accuracy and succinctness as does the adult. Be patient with them at all times; kindness is an efficient teacher and makes an apt scholar. Before you realize it they will have grasped the cardinal principles, and your task will have become much lighter. You must begin simply and teach them gradually, and begin so early that neither of you can remember the exact time. Or if early education has been neglected, and the child has reached an age capable of understanding more advanced ideas, of course the teaching may be modified.

As before indicated, no positive rules can be formulated, and cases cannot be classified, because of the widely diversified conditions and circumstances to which said rules must necessarily be applied. This was my principal reason for not attempting a classification in my original contribution, with adequate rules and suggestions as to their application to secure the best results. Some children, as we know, can more readily appreciate the truths of human genesis and the laws governing their procreative functions, so that a rule which would aptly apply in one case would fail of appreciation in another. It may also be said that some parents are more efficient teachers, and this feature must be considered in the education of the child or adolescent youth in hygienic, physiological, moral, and sexual matters.

That a more comprehensive knowledge and a higher enlightenment are imperatively

demanded, should be patent to every thinking, sane individual; but the question as to how this may be best accomplished is quite another matter. The most formidable obstacle is the false sense of modesty which prevails in society. We live in a modern, enlightened age, yet many people about us are idiots in matters pertaining to sexual morality, for which society is largely responsible. And society is first to condemn acts committed by its members, although it alone may be accountable in many instances.

Louisville, Kentucky.

DIFFERENTIATION OF COLON AND TYPHOID BACILLI.

Yet another method of separate identification of colon and typhoid bacilli is shown by Doctor Tiorkowski, of Berlin, though the number of methods already recommended is so great as to be fairly bewildering to the bacteriologist. Doctor Tiorkowski claims that both bacilli are frequently to be found in urine—a proposition which perhaps requires more evidence than has yet been offered—and as he regards the former as intimately associated with various processes of inflammation, he proposes the comparison of the growth of the two micro-organisms in broth, in gelatin, and in agar-agar, to each of which has been added a slight amount of renal secretion. He believes that while typhoid cultures both in colonies and in tubes exhibit fine, hairy extensions, resembling in the case of the colonies the medusa-head-like appearance held to be characteristic of the anthrax bacillus, the colon bacillus never forsakes its compact form of growth, and only occasionally exhibits small, short, hairy extensions in the contour of the colonies.

Doubtless this method of differentiation is easily applied, but its efficacy is open to considerable doubt, especially as the author's assertions regarding the colon bacillus are far from the truth—this micro-organism does often exhibit very characteristic whip-like extensions under circumstances which have not yet been determined with any degree of accuracy, and such abnormal colonies may repeatedly be obtained from cultivation of colon bacilli that have been introduced into urine of an inflamed and engorged bladder.

THE MEDICAL AGE.

A SEPT-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., AUGUST 10th, 1896.

Editorial.

A CRYING SHAME.

Not long since THE MEDICAL AGE had occasion to draw attention to observations made by a correspondent of the *Chemist and Druggist* wherein it appeared that in England a widely diffused belief obtains that American degrees in medicine and dentistry are to be had almost for the asking. Also were cited some queries that had reached us, which further evidenced the trans-Atlantic conception of the ease with which diplomas could be obtained in this country for cold cash, and we urged the necessity of effectual measures for the repression of the institutions whose malpractices tend to foster such belief.

The trafficking in degrees that are properly the stamp of collegiate distinction, not only casts an undeserved slur upon a large body of American physicians who win their titles in a legitimate manner and by courses of arduous study, but constitutes a standing reproach upon a nation that, while pretending to scientific progress, permits such utterers of counterfeit academic coinage to flourish unchecked and unpunished.

We again refer to this matter owing to reports of cases that recently occupied the attention of London magistrates. The sarcastic comments made by the English press on the facts thus disclosed no doubt reflect, in a fairly accurate way, public opinion in Great Britain, and indicate that a thorough weeding out of the tares which at present mingle with our professional wheat is imperatively necessary if the American "M.D." is to have a single shred of dignity clinging to it beyond the "herring pond."

In one of the cases the defendant, being called upon to show his authority to practice medicine, and knowing his name had no place in the official register of qualified practitioners, pleaded he was the possessor of an "American diploma." Though foreign diplomas are not recognized in England until after certain examinations that confer a legal status, the fact remains that there is a spirit of courtesy and toleration, as well as of free trade, amongst all the learned professions, so that such a plea under ordinary circumstances would likely have been accepted as valid and the defendant permitted to leave the court with the added prestige of acquittal. But there was suddenly a material modification in the value of this defense when, on cross-examination, it transpired the claim to professional dignity rested on the unalloyed merits of a business transaction in which a payment of cash figured on one side and the receipt of the same on the other, and the transference of a piece of worthless parchment. The defendant was forced to admit he had never seen the Alma Mater which had done him the dubious honor of enrolling his name among its list of graduates, and that he had never even crossed the Atlantic. The court "smiled broadly," we learn, when it was naïvely explained that the title was an "honorary" one.

Another interesting object lesson which might well be taken to heart was afforded by the ambitious spirit who, not content with hailing from the "Associated Eclectic Colleges of America"—whatever this may mean—boldly advertised himself as the "first physician of the world," and denounced all hospitals as "carving houses"—a characterization which seems to have chimed in so well with popular sentiment that he kept raking in shekels from crowds of admiring patients until a few little mishaps brought him beneath the heavy hand of the law. He claimed his right to practice to rest in an American degree from the aforesaid "Associated" concern, but where the latter is or was located, the date of examination and graduation, and even the existence of a diploma, failed to be brought in evidence.

Next came the "American Dentists' Association," a bogus concern which floated awhile on the top waves of fortune, but now, we are

pleased to say, is happily and permanently submerged. "Bunkum" was the magistrate's terse definition of its virtuous promoters' defense, while the *Pall Mall Gazette* remarked with cynical humor that, what with dentists and doctors hailing from the "land of freedom," the adoption in self-defense of the Monroe doctrine by the mother country was "threatening to become obligatory."

These facts speak for themselves. The existence in this country of institutions that carry on either covertly or boldly a despicable trade in medical and other diplomas, cannot honestly be denied. Some are "fakes" pure and simple, some have a definite legal status—to the eternal disgrace of the States that permit their existence,—and some are purportedly reputable medical schools but really fostered by would-be prominent members of the medical fraternity who have established them merely for personal financial and advertising ends.

The Chicago institution to which we alluded on a former occasion still exists, in spite of the notoriety that has been given it, and boldly advertises and sells not only medical but a host of other degrees that are supposed to afford evidence of scientific or literary qualifications to the possessors; and its success has stimulated the founding of an every-way parallel concern in Wisconsin.

So long as the conditions just outlined exist, the frequent proceedings before English magistrates will continue to provide most unpleasant reading for every self-respecting medical man in the American Republic. Active steps with a view to putting a complete end to the existence of concerns devoted to the sale of degrees—concerns so opposed to all ideas of honesty, morality, and scientific progress, and that are detrimental to the reputation and interest of the legitimate physician—cannot be too soon adopted. Meantime it would appear as if measures might be taken by the General Government to secure a registration of all honorable, legitimate schools which provide an honest curriculum, the same to be published and distributed abroad for the protection of the holders of legitimate degrees.

Much might be said on the duty of the States individually, or of the General Government, to adopt prophylactic measures neces-

sary to safeguard society against the pest of quackery; but no sooner is such a step taken than a great outcry is made against interference with "personal liberty," a fetich which seems to be of far more moment than life and health. But such considerations apart, it is nothing less than a National disgrace that qualifications invested in men's minds with certain attributes of medical achievement and scientific training are attainable in the United States by the mere agency of the almighty dollar—a condition that does not obtain to even the most petty and least civilized of the Spanish-American States.

TREATMENT OF THE DYING.

"I know of nothing in our attendance on the dying more gratifying than to witness the improvement in face, feature and expression that marks the kindly action of opium under these circumstances (the feeling of exhaustion and sinking referred to the stomach and heart in the dying). In an hour or thereabouts after it has been taken, some color returns to the face, the features lose somewhat of their sharpness, a placid expression replaces the look of anxiety, and the sufferer passes into an easy, gentle sleep, from which he awakes refreshed and comforted, and helped, as it would seem, to die more easily when his time arrives. Hufeland, writing at the end of a long professional life, did not hesitate to declare that opium 'is not only capable of taking away the pangs of death, but it imparts even courage and energy for dying.' Opium must be administered in such doses as will appease suffering and disorder. The dose for an adult should be rarely less than a grain, but oftener more. . . . The effects of opium continue for about eight hours, and if its action is to be maintained it should be repeated at intervals of that duration or somewhat less. The dose is to be governed solely by the relief afforded. . . . Opium should always be given to the dying in its liquid form, as the tincture or the fluid extract, or as morphine, of which I know of no preparation of equal value to the bimeconate. So long as the air-passages are not obstructed by secretion, so long as there is no lividity or even duskiness of the face, opium, if indicated, may be given in aid of

the euthanasia; but if they are present it is hazardous and might hasten death. Much care, too, is needed in the employment of opium in cases where the heart is *greatly enfeebled*, and where the conditions directly or indirectly induced by opiates, especially that of sleep, may be just enough to turn the balance against it. A contracted pupil is also a contra-indication to opium; it implies a state of the brain which opium is likely to increase rather than relieve. And if food has been injudiciously pressed upon the patient so that the stomach is distended with it, and the epigastrium is full and tense, opium given by the mouth is rarely found to act kindly, if at all. If, under such circumstances, the influence of opium is needed, we should resort to the hypodermic injection of morphine."—W. MUNK: "Euthanasia" (*The Practitioner*).

THE MISSING LINK.

Pithecanthropus is still very much in evidence, and a recent contribution to the *Anatomie Anzeiger* by Doctor Dubois reiterates the conclusions that have been before published by this gentleman. The most careful criticism to which the remains discovered in Java have been subjected appears, however, from the pen of M. L. Manouvrier in the *Bulletin de Société d'Anthropologie*,* who points out that the femur of Pithecanthropus is very human in character, the only non-typical peculiarity—putting aside the pathological bony outgrowth—being in the popliteal region. M. Manouvrier ventured to discuss this point only after having examined several hundred femurs, and he finds that of Pithecanthropus fits in a series with normal human bones of like character, and that it is no more simian than human. "The peculiar variation of the Javan femur is associated with a weak musculature, and the latter may possibly be due to the physiological condition [above] noted; when another femur is discovered, it may be yet more human than this one."

In his discussion of the skull he gives three alternative ideal restorations and several other comparative diagrams, from which he draws the conclusion that "the Trinil race

has arisen from a race or species of very short stature"—a conclusion very important from a theoretical point of view; and "with the evidence now to hand there seem to be grounds for belief that in the evolution of man the femur assumed its human characteristics in advance of the skull." M. Manouvrier denies that Pithecanthropus presents a case of microcephaly, and firmly believes that at last the "missing link" has been found.

"LEFT-HANDEDNESS IN NORTH AMERICAN ABORIGINAL ART."

This is the title of a brief paper in a recent number of the *American Anthropologist* from the pen of Doctor D. G. Brinton, who finds that a preference for the right hand and side has existed in the majority of mankind from earliest times, though not always in the same degree. He concludes that the ultimate reason is to be found in the assumption of the erect posture.

The anthropoids and other primates closest to men are ambidextrous, displaying no preference for either hand. But the erect posture introduces a new distribution of force in the economy; it opposes the powerful retardation of gravity to the distribution of the arterial blood above the level of the heart. The great arteries arising from the aorta carry the blood in an appreciably shorter course, and in less time, to the left brain than to the right. Its nutrition, therefore, is the more abundant, and its vitality the more active, of the two hemispheres. Hence the right side of the body, which it controls, is more ready to respond to a stimulus on account of its higher innervation.

This position has more recently been upheld by O. T. Mason, in the same journal.

EDITORIAL NOTES.

"Rare Earths."—

About ten years ago Carl Welsbach first enunciated the property of rare earths which led to the discovery of the incandescent light. *Nature* declares that Enrico Clerici (*Atti della R. Accademia del Linnæi*) considers these are produced by some such action as that which takes place in the preparation of incandescent mantles, wherein the fabrics are soaked in solutions of certain salts, and the organic matter

* Deuxième Étude sur le Pithecanthropus Erectus comme Précurseur présumé de l'Homme.

afterwards removed by calcination. He says if sections of wood are treated in this manner with the nitrates of certain metals, and the ashes subsequently examined under the microscope, "every detail of the original tissues is found perfectly preserved, even down—for example—to the scalariform ducts of *Pteris aquilina*." He also believes this process to be the secret of fossilization of woods, which evidence "a phenomenon of molecular interposition with which it is possible to cause certain insoluble and refractory oxides to penetrate into cell-walls and vegetable fibres, and to transform them in the course of a few minutes into true petrifications."

Potash-making.—

We find in a copy of the *Essex* (England) *Naturalist* a paper on "Potash-making as a Lost Rural Industry." It appears that in the beginning of this century the preparation of alkali by lixiviation, in large iron or copper pots, of ashes of wood, straw, grasses, and other vegetable refuse, was a very prominent rural industry, and that the "pot-ash" was at once converted into soap. The decay of this industry, according to the *Naturalist*, is to be attributed to the production on a large scale of the cheaper soda-ash from salt, and the introduction of coal to replace wood as a fuel. The *Naturalist* also contrasts the healthy conditions under which the "potash" was produced a century ago with those, decidedly unhealthy, under which soda-ash is manufactured at the present day.

New Insect-Destroyer.—

The highly poisonous nature of acetylene has suggested the possibility of employing carbide of calcium as an insecticide for agricultural purposes. A French savant, M. Chuard, proposes to try thoroughly mixing the carbide with the earth surrounding the roots of plants, in order that under the influence of moisture acetylene will be slowly given off, thus preserving from attack; at the same time he holds the by-products, consisting of chalk and a little ammonia, would have a beneficial effect on the soil. Whether this would succeed equally well wet or dry, or succeed at all, remains to be proved, but experiments are now being made in the hope of thus eradicating the grape phylloxera.

Items and News.

The Great Lakes and Mucous Membranes.—

Doctor Roe remarked to the American Laryngological Association: "Mucous tissue subjected to a damp atmosphere becomes more or less turgescient, and this becomes more pronounced if the tissue is diseased. This is due to two causes: To the endosmosis of the watery vapor of the air that takes place because it is much less dense than the blood; to the checking of the elimination of watery vapor from the mucous membranes. This turgescence of the tissues causes an increased supply of blood to the part, and supernutrition and hypertrophy of the tissue take place. As the mucous membrane of the nasal passages is much more exposed to atmospheric conditions than the deeper structures of the respiratory tract, and is provided with a greater blood-supply, it is subject to more frequent turgescence, and is accordingly much oftener the seat of diseased conditions resulting therefrom. It is for this reason that catarrhal affections of the nasal passages are so much more prevalent in the region of the Great Lakes, where the air is excessively damp, than elsewhere."—*Medical Standard*.

Medical Literature Delusion.—

The delusion of keeping up with the science by having all the new books, quickly disappears after a little experience. The practical men of the profession have learned that all new books are not alike valuable, and many are only books in name, without value or merit of any kind.

Agents who press the sale of the latest work are surprised that men who would be naturally interested refuse to buy. They seldom realize that the market is glutted, and the buyer knows this fact and prefers to wait until a new book has proved its right to live as a real, veritable teacher. The books which come from the press are not all teachers, nor do they bring new lessons or new or valuable experiences for the reader. The world of medical books is sadly overcrowded, and still they come—still-born generally, asphyxiated, living a brief time, then disappearing, or crying lustily for a time, but with nothing else but a cry.—*Lancet-Clinic*.

Nostrum Traffic.—

The unrestricted traffic in patent medicines is a disgrace to our civilization. Communities and States are up in arms against alcohol as a beverage in all its forms, except the

one most detestable and villainous. Introduce some vile ingredient into the alcohol, christen and label it as a patent medicine, and it is robed in innocence and welcomed to the homes of the righteous. A poison can be legally sold as such in most States only with a flaring label of warning, and after double or triple forms of registration by a competent pharmacist. Put it up as a patent medicine, decorate it with a seductive title and a rainbow wrapper, and at once it is beyond the restraints of regulation, and may be sold by street hawkers, slaughter shops, anybody and everybody, without let or hindrance. Where is the consistency, the intelligence, the justice, in this strange partiality for the nostrum curse?—*Western Druggist*.

Undoubtedly!—

A little girl in a Pennsylvania town, in saying her prayers the other night, was told to pray for her father and mother, who were both very ill, and for one of the servants, who had lost her husband. She faithfully did as she was bid, and then, impressed with the dreary condition of things, added on her own account: "And now, oh God, take good care of yourself, for if anything should happen to you we should all go to pieces. Amen."—*New York Times*.

Age and Volupty in Women.—

A widow, seventy years of age and twenty years past the climacteric, who had experienced two apoplectic seizures, recently married, and, having been advised to avoid any excitement for fear of return of the "strokes," wished to know whether sexual indulgence was contra-indicated. She declared her sexual sense, her passion and her gratification were as great, if not greater, than before the menopause.—H. C. BLOOM, in *University Medical Magazine*.

The Roentgen Rays in the Witness-Box.—

We note that at the trial of an action for damages at Nancy, in France, the surgeon who had charge of the injured plaintiff was accused of having caused the damage by mistaking a dislocation for a fracture. The accusation was sustained by producing in court a Roentgen photograph, which showed clearly the bones in the dislocated position without any fracture.—*Medical Press and Circular*.

The Mercurials.—

Of the *modus operandi* of mercury we know nothing except that it acts through the medium of the circulation, and that it pos-

sesses a peculiar alterative power over the vital functions which enables it in many cases to subvert diseased actions.—BACHE.

The Secret Out!

These "biographical sketches of eminent physicians" which illuminate the pages of some of our exchanges have been declared to be published "at the rate of \$25 for the picture, and an extra flattering notice."—*Practical Medicine*.

Therapeutics.—

The most experienced and capable medical authorities of to-day declare the fundamental basis of all therapeutics must be to restore the tone and to reinforce the powers of resistance of the tissues.—*Eclectic Medical Journal*.

Food for Thought.—

After reading certain papers in the big medical monthlies that are said to reject hundreds of manuscripts daily, one shudders to think what manner of stuff the rejected must have been.—*Medical Recorder*.

The Electro-Therapeutical Association.—

The sixth annual meeting of this organization will be held September 29th and 30th and October 1st, in Allston Hall, Boston, Massachusetts. The Secretary is Doctor Emil Heuse, of New York City.

Mississippi Valley Medical Association.—

The date of meeting has been changed to September 15th-18th, in order to permit the members and their families to take a tour through the Yellowstone Park.

Iritis and Glaucoma.—

A symptom of iritis and glaucoma is neuralgia of one side of the head, accompanied with inflammation of the eye.—*Practical Medicine*.

A Practical Definition.—

Professor: "What are synthetical preparations?"

Junior: "Preparations made up backwards."

Intra-uterine Mucus.—

This excretion is normally not only sterile but germicidal in nature.

A Hint regarding Nurses.—

Keep her busy so her tongue will be kept quiet.—*Exchange*.

Book Reviews.

PRACTICAL POINTS IN NURSING. By Emily A. M. Stoney. Cloth; 12mo; pp. 436. Price, \$1.75. W. B. Saunders, Philadelphia.

The author attempts to delineate in popular language the entire range of private nursing as distinguished from hospital nursing, and to instruct how to best meet the various emergencies which may arise when distant from medical aid or when the nurse is thrown on her own resources. The volume is divided into seven parts, which deal with the responsibilities, qualifications, and equipment of the nurse; selection, preparation, and management of the sick-room; duties of the nurse toward the patient; nursing in accidents and emergencies, in special medical cases, and of new-born and sick children. Finally, a section is devoted to physiology and descriptive anatomy. The appendix contains considerable valuable information, and a very full and comprehensive index adds to the value of the work.

A MANUAL OF ANATOMY. By Irving S. Haynes, Ph.B., M.D. Cloth; 12mo; pp. 680. Price, \$2.50. W. B. Saunders, Philadelphia.

This is a concise *résumé* of the anatomy of the human system, and especially creditable in the character and number of its illustrations, which are half-tones from photographs, 134 in number. While there is little new—except in the illustrations—the volume is very complete, especially available to the student and for purposes of reference during dissection.

THE ROYAL NATURAL HISTORY. By Richard Lydekker, B.A., F.R.S., F.C.S. 8vo; pp. 96 (each). Price, 50 cents (\$11.00 per year). Frederick Warne & Co., New York.

The twenty-sixth number (Volume V, No. 2) under date of May 15th, completes the history of the tortoises and treats of scaled reptiles—lizards, chameleons, geckos, agamas, iguanas, snake-like lizards, etc. Chapter v (Volume V) opens with a history of the general characteristics of snakes, followed by a description of the pythons, boas, and anacondas.

The issue of June 1st continues with the serpents, describing the different varieties of sand-snakes, water-snakes, tree-snakes, adders, and vipers; it also gives initial chapters on amphibians, the frogs and toads receiving due consideration.

Chapter I, Volume VI (No. 28, June 15th), describes the newts, salamanders, cœcilians, and others of the orders Caudata and Apoda. Chapter II deals with the primeval salamanders. We also find in this number the initial chapters on fishes, giving their general characteristics. Then follow the lung fishes and chinæroids, bony fishes, and ganoids, including the mud-fishes, perch, mullet, mackerel, etc.

The colored illustrations in the three numbers are of chameleons, the black iguana, soft-river tortoises, wall-lizards, a leaping salmon, and a

most beautiful representation of that peculiar fish known as the chimæra.

We can only reiterate what has before been said, that all the matter in this work is authentic and fresh, and the style clear, simple, and readable. It is just the work that should be in every school and home library—especially in every home where young people are growing up. It is invaluable to the palæontologist and general naturalist as well as to the sportsman, who will find the game animals very fully treated of. The handsome typography of the work, its plentiful illustrations, and the scope and character of the latter, make it superior to anything of the kind hitherto published.

THE BRITISH GYNÆCOLOGICAL JOURNAL. Edited by Leith Napier, M.D., F.R.S. Paper; 8vo; pp. 152. Price, 3s. 6d. John Bale & Sons, London.

This gives the proceedings of the British Gynæcological Society for February, March, and April, and the notable papers appearing therein are: "The Permanent Cure of Antelexion by Operation," by George E. Keith; "Ventro-suspension of the Uterus," by Mayo Robson; "Value of Rectal Exploration as an Aid to Diagnosis in Diseases of Children," by George Carpenter; and "The Use of Anæsthetics in Obstetrics," by H. Bellamy Gardner. Doctor John Shaw reports a rarely recognized complication in the convalescence from abdominal section, and M. Scharlieb three cases of hysterectomy. The editorial deals with "Abdominal Hysterectomy with Intra-pelvic (intra-peritoneal) Treatment of the Stump." There are the usual reviews and summaries of gynæcology and obstetrics.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, 1896. Cloth; 8vo; pp. 544. Published by the Society.

The proceedings for the year 1896 are exceedingly interesting. Space will not allow of giving a complete list of the papers presented; nevertheless attention may be called to the address of Charles W. Eliot, LL.D., President of Harvard University, on "Medical Education of the Future." "The Present Status of Surgery of the Brain" is discussed by Doctors E. D. Fisher, M. Allen Starr, Charles L. Dana, B. Sachs, and George Woolsey; "Abdominal Surgery" by Doctors A. Vander Veer, Herman Mynter, Henry J. Garrigues, W. E. Ford, and M. D. Mann. Other papers of particular interest are: "Nitroglycerin in the Treatment of Sciatica;" "How to Prevent River and Stream Pollution;" and "Treatment of Fractures of the Patella."

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Publishing Co., Irvington-on-the-Hudson, N. Y.

The August issue opens with an article by C. F. Dewey entitled "The Story of an Ancient German Burg;" Mrs. R. de Koven writes of "Golf and the New Woman;" "Cordova, the City of Memories," is by H. C. Chatfield-Taylor; "A Daughter of Folly," by A. E. Barr; "The Avenger of the Seven," by J. J. A'Becket; "The Story of a Famous Expedition," by J. W. Freeman; "Under the Shadow of Tyburn Tree," by Caroline Brown; "Count Frontenac in New France," by George Stewart. The poetry is by Dallett Fuguet, Margaret E. Sangster, and H. W. Boynton. There are the usual departments.

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The principal papers in the August issue are: "Relations between the United States and Great Britain," by J. B. Moore; "A Stroke of Luck," by Mrs. E. T. Cook; "Art and Life," by Vernon Lee; "Kafir Finance," by W. R. Lawson; "Natural Requit," by Norman Pearson; "Letters on Turkey," by Georgina Max Müller; "Li Hung Chang," by D. C. Boulger; "How Summer Came to Caithness," by Sir Herbert Maxwell; "Ménagiana"—an old French jest-book—by Sir M. E. Grant Duff; "The Modern Persian Stage," by James Mew; "Modern Hygiene in Practice," by Alfred Schofield; "The Stream's Secret," by Maxwell Gray; "Robert Burton and the 'Anatomy of Melancholy,'" by E. W. Adams; "Achthar—the Story of a Queen," by Cornelia Sorabji. There are several shorter contributions of more or less interest.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston and New York.

In the August number Mrs. James T. Fields writes of "Days with Mrs. Stowe;" "Present Conditions of Literary Production" is by Paul Shorey; "The Spirit of an Illinois Town," by Mary H. Catherwood; "Barnard and McCosh, and Present College Problems," by D. C. Gilman; "Sintamaskin," by C. Grant Lafarge; "A Holiday with Montaigne," by Henry D. Sedgwick, Junior; "The Old Things" (xiv-xvi), by Henry James; "About Faces in Japanese Art," by Lafcadio Hearn; "A Literary Model," by M. B. Sheldon; "Athenaise" (i), by Kate Chopin; "Judith and Holofernes" (poem), by Thomas B. Aldrich.

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

In the August number Mrs. Oliver Bell Bunce writes of "A Summer Wedding;" Margaret Muchmore of "Notes on the Cuisine;" "My Lady's Summer Hall" is by Hester M. Poole; and "Three Decorative Suppers" is by Ethel D. Morse. In the department of "Furniture and Furnishings" Edward L. Young writes of "The Modern American House;" "A Green and White Chamber" is by Alice M. Kellogg, "A Seaside Cottage" by J. O. Bunce, "A Pioneer Home" by Laura B. Starr, "Corner of Smoking Room" by Vollmer and Marzana. There are the usual departments.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The August issue is a fiction number and contains several special articles of interest, including the first paper in A. F. Jaccaci's picturesque account of his journey "On the Trail of Don Quixote," and Alice Morse Earle's "Old-time Flower Gardens." Other articles are: "Gregory's Island," by George W. Cable; "As Strangers," by Annie Eliot; "Mrs. Loft's Ride," by J. A. Mitchell; "From the Error of His Way," by Rollo Ogden, "Charm He Never So Wisely," by Eleanor Stuart; "The Maid's Progress," by Alston Goode; "By the Committee," by Bliss Perry; and "Sentimental Tommy" (xxvii-xxix), by J. M. Barrie.

ANNALES D'OCULISTIQUE. Edited by Doctor George T. Stevens. Price, 50 cents; \$5.00 per year. The Transatlantic Publishing Company, New York.

The March issue contains: "Extraction of Metallic Foreign Bodies from the Posterior Segment of the Eye by the Aid of the Electro-magnet," by Rohmer; "Influence of Country and Race in the Etiology of Trachoma," by Swan M. Burnett; "On the Luminous Perception at the Periphery of the Visual Field," by G. Ohlstrom; "On the Use of Dry Dressing and Dry Topical Powders in the Treatment of Ocular Affections," by Rogman; "Reports of Societies;" "Reviews of Ophthalmological Journals;" "Book Notices;" "Miscellany."

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

Professor William G. Sumner, of Yale, opens the August number with an article on "The Proposed Dual Organization of Mankind;" "Science at the University of Pennsylvania" is by Lewis R. Harley; David A. Wells concludes the historical division of his series of articles on "Principles of Taxation" with a description of the Swiss cantonal systems; "Spirit Writing and Speaking with Tongues" is by Professor W. R. Newbold; C. H. Henderson discusses "The Aim of Modern Education;" a description of "The Scallop" is by Fred Mather.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

Contents for August are: "Burnt Wood in Decoration," by J. W. Fosdick; "Pharaoh of the Hard Heart," by W. M. F. Petrie; "Sir George Tressady" (x), by Mrs. Humphry Ward; "The Violin," by J. M. Lippmann; "The Cruel Thousand Years," by the author of "The Cat and the Cherub;" "Life of Napoleon Bonaparte," by W. M. Sloane; "Li Hung Chang," by J. W. Foster; "Romance of a Brown-Paper Parcel," by T. W. Higginson; "In Nyassaland," by E. J. Glave; "An Open-eyed Conspiracy" (ii), by W. D. Howells; "A Day in Tophet," by M. M. Pope.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the August issue is "The Great K. & A. Train Robbery," by Paul L. Ford; "A Summer on the Gulf Coast" is by Francis Lynde; "In Louisa County," by C. P. Lamar; "Immigration Evils," by Rhoda Gale; "The Federation of Australia," by Owen Hall; "A Narrow Escape," by George Montbard; "Heraldry in America," by Eugene Zieber; "The Devil's One Good Deed," by Evan R. Chesterman. The poetry of the number is by J. B. Tabb, E. M. Thomas, Clarence Urmy, and A. W. Atkinson.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

The August issue opens with a paper on "Child-Study in a Sunday School," by Mrs. B. E. Burke. Other notable papers are: "The Harp Among Various Peoples," by Catherine Feeny; "Some Prototypes of Famous Heroines," by Charles Robinson; "Louise Lateau," by William Walsh; "Catholic Tolerance in Irish History," by J. A. J. McKenna.

The poetry is by Edmund Hill, E. C. Donnelly, P. A. Wright, and D. J. Donahoe. There are also the usual readable short stories and the usual departments.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. Review of Reviews Co., New York.

The August issue contains a fine portrait of the late William E. Russell, of Massachusetts, for a frontispiece. "The Progress of the World" is full of the silver question. Willis Abbott writes of William J. Bryan. "Harriet Beecher Stowe" is the subject of an article which contains several portraits of Mrs. Stowe. "President Angell and the University of Michigan" and "Sunday in a Tramp's Hotel" are both interesting. There is the customary current caricature.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 5 cents; 60 cents per year. The Monthly Illustrator Publishing Co., New York.

The chief articles in the August number, many of them illustrated, are: "The American Artist in Paris;" "Three Sea Vignettes;" "Injun Mag;" "Whist and its Masters;" "Shelley and Keats;" "Backdoor Neighbors;" "The Law and the Long Bone;" "Pretty Sal;" "A Grand Passion;" "The Making of Monotypes."

The change from two dollars to sixty cents a year marks a new era of this magazine.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for August opens with a paper on "Further Effects of the Silver Agitation." The other contents are: "Editorial Notes and Comments;" "Combined Warming and Ventilation of Public Buildings;" "Statues and Monuments of New York" (v); "Strength of Yellow Pine Columns;" "Architecture in the Academy;" "Legal Notes;" "In Streets and Papers;" "Architectural Charges of a Century Ago;" "Obituary;" "Societies;" "Personal."

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

The chief contributions for August are: "The Little Duchess and the Lion-tamer," by F. L. MacKenzie; "The Palio at Siena," by E. R. Pennell; "The Swordmaker's Son" (xxiv-xxvii), by W. O. Stoddard; "Sindbad, Smith & Co." (xv, xvi), by Albert Stearns; "The Story of Marco Polo" (v, vi), by Noah Brooks; "A Sand Pile," by H. M. Lay; "The Tricks of Torpedo Boats," by E. Ingersoll; "The Very Good Friends" (ii, iii), by C. C. Jencks. There are the usual verse and departments.

OUTING. Price, 25 cents; \$3.00 per year. The Outing Publishing Co., New York.

The notable features for August are: "A Bout with the Bluefish," by E. W. Sandys; "The Half-Raters," by R. B. Burchard; "Two Handicaps," by Caroline Shelley; "The Naval Militia," by W. H. Stayton; and "Plain John Miller," by C. P. Burton. Other seasonable sketches and many illustrations complete an excellent number. The editorial and record departments are very interesting.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the August number E. L. Sherwood writes of "American Wives of Foreign Diplomats;" E. P. Telford of "Some Armenian Notables;" L. L. Pepper of "Three Famous Opera Houses;" "Black Pedro" is by Everett McNeil; "Clinton Place," by F. A. Mathews; "Light and Sound on the Stage," by C. Wilstach; "Almanacs," by F. W. Crane. There is the usual department of "Fashion, Fact, and Fancy" by Countess Annie de Montaigne.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per annum. Anthropological Society, Washington.

The July issue contains: "Classification and Development of Primitive Implements," by Joseph D. McGuire; "The Ute Bear Dance," by Vernor Z. Reed; "John Gregory Bourke"—obituary,—by F. W. Hodge. There are the usual "Book Reviews," "Notes and News," and "Bibliography of Anthropological Literature."

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines.

The principal articles in the August issue are: "Camping and Climbing in the Big Horn," by D. F. and J. E. Rogers; "The Angler's Paradise," by H. Bashford; "A Trip to the Moon River," by A. G. Hatry; "Newport on the Pacific," by F. McKinnie; "Views on the Volga," by O. C. Coll; "Aggie," by M. B. Douglas; "Hal," by H. H. Campbell; "The Young Homesteaders" (iv), by F. W. Calkins.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Company, New York

The chief articles in the August issue are: "The Universe Within;" "Krishna's Teaching of Karma;" "Tyranny of Intellectual Shrewdness;" "Beyond the Illusion of Sense;" "Revelations of a Moorish Mirror." These are respectively by H. Genone, Charles Johnston, R. B. Davenport, B. F. Underwood, and Lucy Cleveland. There are the usual departments.

McCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The issue for August is a midsummer fiction number, with stories by Octave Thanet, Stephen Crane, Clinton Ross, E. W. Thomson, and Annie Eliot. It opens with a paper on "Mr. Gladstone at Eighty-six," by W. T. Stead. Elizabeth Stuart Phelps contributes further reminiscences of "Literary Boston." There is also a paper which tells the true story of Lincoln's first meeting with Stanton.

NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Co., New York.

"The Future of the Anglo-Saxon Race" is the subject of a paper by Sir Walter Besant in the August number. Mrs. Burton Harrison's "Newport Symposium" is very graphic and well worth reading. Prescott F. Hall writes a good article on "Italian Immigration." There are also other excellent articles.

Therapeutic Brevities.

Passiflora.—There are three species of this flower, the *P. cornutea* (from Brazil), *P. lutea* (from Ohio), and *P. incarnata*, the latter being a greenish-colored egg-shaped apple which turns yellow when ripe (from May to August). *Passiflora incarnata* is a mild and harmless nervine and soporific, and a valuable adjunct in the treatment of nervous affections attended or caused by congestion of the brain and spinal cord. It acts very much like belladonna, but does not affect vision or the secretions of the mouth or throat. In spasms and in neuralgia it is a mild and efficient remedy. In full doses it relaxes the muscles in tetanus both in men and in horses—in horses it should be pushed freely. It does not derange the stomach or depress the heart, hence is not attended with the danger accruing to other nervines. In infantile convulsions it works like a charm. In the peculiar hyperæsthetic states that arise from dentition in infants it acts with certainty and promptitude. In nervous and sick headaches, in neuralgia of the fifth pair, in insomnia of typhoid and typhus, and in the excited state peculiar to professional and literary men and dependent upon overwork, it is most satisfactory. It should take the place of opium in a majority of cases where the latter is supplied, and in almost all cases of diseases of children. I think it can take the place entirely of chloral and the bromides.

In the hysteria of women, dysmenorrhœa, and neuralgia of the uterus and ovaries, this is a most desirable remedy and may be given along with wild cherry and black haw. Many physicians fail to realize the good effects of this charming remedy, owing to the use of a feeble tincture. It should be employed in concentrated form in doses up to one or two ounces if necessary, and repeated until it acts.—I. J. M. Goss.

Hypertrichosis.—Kaposi declares pastes are better than razors for the palliative treatment of hypertrichosis, and accordingly recommends the "rusma" employed in Oriental harems to destroy pubic and axillary hair. This paste is made in the proportion of a half a grain of yellow sulphide of arsenic to eight grains of unslaked lime, and sufficient water to make a paste, being subsequently boiled. It is put on by means of a spatula, and left ten minutes till dried, then scraped off with a dull knife, the skin washed, dried, and powdered. This is probably the oldest and best known depilatory, inasmuch as it

has been used for ages by the Jews for periodical removal of the stubble of the beard.

Another depilatory preparation of value is calcium sulphhydrate (CaH_2S_2), made by passing sulphuretted hydrogen gas through a thick cream of slaked lime until the latter will absorb no more. It is antiseptic and alkaline, therefore an efficient soap and bleaching agent. It frequently destroys the hairs some distance down into the mouth of the follicles. It incites no more folliculitis than accrues to the ordinary use of the razor. A dusting powder of zinc stearate may be advantageously used after the depilatory has been washed off in abundance of water and the skin well dried.

For a patient suffering with hypertrichosis the use of this paste once every one or two weeks will be safe, economical, and efficient. I am sure also that it has a wide application in the treatment of various ringworms.—A. W. BRAYTON, in *Indiana Medical Journal*.

Silver in Gastric Affections.—Doctor D. D. Stewart employs silver very largely in these maladies, and with very great success, especially in cases of chronic catarrh associated with painful digestion, or of nervous dyspepsia characterized by hyperchlorhydria. In whatever form of stomach disorder it is employed for its local effects, it is always necessary to first cleanse the viscus by the aid of the tube, removing all food and adherent mucus. The stomach is first preferably sprayed through the double stomach-tube with a silver solution of the strength of 1 to 1000 or 2000, and subsequently washed with clean water until the return flow shows no coloration from silver chloride. In most cases there is rapid decomposition of silver through the action of the hydrochloric acid in the cells of the mucous membrane. However thoroughly the stomach is cleansed, whether with an alkali or not, almost immediately the returned water is of opaque hue, showing the formation of silver chloride. In case of achlorhydria with atrophy of the secretory glands, it is interesting to note that the silver gives no evidence of decomposition into a chloride.—*Philadelphia Polyclinic*.

Salix Nigra.—This species of *Salix* is very useful as a sedative to the generative system. In acute gonorrhœa with much erotic trouble, and in chordee with great irritation, I give in doses of thirty to sixty drops at bedtime, to be repeated at midnight or towards morning if needed. In these cases nothing has given

me more satisfaction, for it robs night of its terrors, and leaves no unpleasant consequences. Where there is excessive venereal desire, amounting to satyriasis, it controls the venereal appetite in a very satisfactory manner; it can be given where the bromides have always been considered appropriate and where the bromides would be very inappropriate, and there is no reflex effect on the brain or nervous system.—DOCTOR FEARN, in *Chicago Medical Times*.

Worm Syrup.—

℞ Santonin, 4 grains.
Sweet senna liquor, $1\frac{1}{2}$ drachms.
Glycerin, 1 drachm.
Syrup of anise, to make 1 ounce.

Rub the santonin to a fine powder, mix with the glycerin, then add the syrups. Label: "Shake the bottle."

Dose for a child under one year old, half a teaspoonful; one year old, one teaspoonful; three years old, one and a half teaspoonfuls; four years old, two teaspoonfuls; six years old, two and a half teaspoonfuls; eight years old, three teaspoonfuls. Give the first thing in the morning fasting.—*Indian Medical Record*.

Nitroglycerin for Gall-stone.—I was called to a married woman aged forty-eight, and made a provisional diagnosis of gall-stone colic, subsequently confirmed by Doctor Lauder Brunton. I ordered her one-hundredth grain nitroglycerin, which gave relief in a few minutes; and she has never had an attack since which has not been relieved by this remedy.

The use of the drug was suggested by its known paralyzing action on unstriated muscular tissue. Presumably it relaxes the spasms of the gall-bladder and ducts. Perhaps some of the cases of gastralgia that are relieved thereby are really cases of biliary colic.—DOCTOR TURNBULL, in *The Lancet*.

Resuscitation of the Still-born.—Seize the infant by the back of the neck with one hand, by the feet with the other, and alternately lower one hand and then the other, repeating the movement six to eight times per minute. Gravity, acting on the contents of the abdomen, reacts on the diaphragm, which in turn causes air to enter the lungs. A very excellent method is to first put the infant in a basin of very warm water (100° F.) for a few moments, and slap it smartly on the back a few times. Repeat the warm bath and slapping alternately every few moments.—JOSEPH ADOLPHUS.

Chronic Rheumatism.—

Powdered rhubarb, 4 ounces.
Powdered gum guaiac, 1 ounce.
Sublimed sulphur, 1 ounce.
Cream of tartar, 2 ounces.

Mix thoroughly, then stir into one ounce (fluid) clarified honey.

The dose is one to two tablespoonfuls in a half-tumbler of hot apple cider at night on going to bed, and again in the morning. When the cider is not available any fluid will answer. Very flattering results have accrued to this formula.

Indigestion in Children.—Taylor recommends, as extremely efficient in the acid fermentative dyspepsia of children:

℞ Sodium carbonate, 1 drachm.
Tincture gentian, 1 ounce.
Cinnamon-water, to make 4 ounces.

Dose, one teaspoonful given as required.

In cases of irregularity of the bowels, whether it be sluggishness of the movements or a tendency to occasional diarrhoea, sodium phosphate may be added to the above with great advantage.—*The Practitioner*.

Scopolamine Hydrochloride.—A one-tenth of one-per-cent. solution of scopolamine hydrochloride is absolutely positive in its control of accommodation, and therefore reliable from one to twelve hours after instillation. In proper strength it is non-toxic; it gives the least trouble of any mydriatic; it is convenient in that the examination can be made at any time within twelve or more hours; it keeps well and lasts long, one grain being enough to test the refraction of five hundred patients.—MURRELL, in *Annals of Ophthalmology and Otology*.

Ipecacuanha in Bee-sting.—Doctor George King, of the Calcutta Botanical Gardens, while in Baroda was attacked by a swarm of bees and severely stung on the hands, head, face, and neck,—no fewer than 150 stings were afterwards taken from his neck. Fortunately he had some ipecacuanha powder, which he immediately made into a paste and smeared over head, face, and neck. The effect was most marked, preventing to a large extent the swelling and pain which usually follow bee-stings.—*Indian Medical Gazette*.

Seborrhæic Vaginitis.—Under the name of vaginal seborrhœa, Strassmann describes (*Practitioner*) a peculiar form of vaginal ca-

tarrh which is frequently met with in stout women, old maids, and during pregnancy. This may be considered as simply due to exaggeration of the normal secretion of the vagina, and is characterized by slight discharge consisting mainly of whitish, fatty clots, in which are found agglomerations of pavement epithelium. Relief is rapidly obtained by means of injections of warm water to which a little sodium bicarbonate has been added.—*Medical Standard*.

Rheumatoid Arthritis.—In the case of an unmarried woman, forty-two years old, who had always lived amid hygienic surroundings, Doctor Eshner prescribed Donovan's solution (mercury and arsenic iodide), five to ten drops thrice daily, in conjunction with applications to small areas about the affected joints of collodion with cantharides, Turkish baths from time to time, and systematic massage and manipulation of the thickened and stiffened joints.—*Philadelphia Polyclinic*.

Pilocarpine.—This is a valuable medication in acute or chronic kidney affections in adults or children. I use one-third to one-half grain every two or three hours; also employ pure cream of tartar freely in these affections. Pilocarpine is also highly valuable in croup, diphtheria, broncho-pneumonia, and acute capillary bronchitis.—JOSEPH ADOLPHUS, in *Georgia Eclectic*.

Sexual Neurasthenia.—

- ℞ Quinine muriate, 40 grains.
Iron subcarbonate, 120 grains.
Strychnine sulphate, 1 grain.
Extract damiana, 40 grains.
Extract cinchona solution, 40 grains.

Make twenty capsules; take one after each meal.

—*Virginia Medical Monthly*.

Irritable Heart.—Where there is cardiac irritation, belladonna is a prime remedy, even if valvular disease be present. One or two drops of a good fluid extract, repeated every four hours, often affords rapid relief, removes many severe symptoms, promotes comfort of the body, rest to the heart, and relieves local congestion, chronic rheumatic arthritis, etc.

Nitroglycerin.—In cases in which an active cardiac stimulant is indicated, but in which the vascular tension or the state of the vessels would otherwise contra-indicate the use of digitalis, Eshner recommends pre-

scribing the latter in conjunction with nitroglycerin in physiological doses.—*Louisville Medical Monthly*.

Asthma.—

- ℞ Ammonium iodide, 2 drachms.
Tincture lobelia, 1 drachm.
Tincture belladonna, 1 drachm.
Syrup wild cherry bark, 1 drachm.
Extract grindelia robusta, 30 minims.
Distilled water, to make 1 pint.

A teaspoonful three times a day.

Easton's Syrup.—

- Iron wire, 65 grains.
Strychnine, 5 grains.
Syrup acid phosphoric (s. g. 1.500), 11 drachms.
Quinine phosphate, 2 drachms.
Simple syrup, 13 ounces (Imp.).
Water, to make 20 ounces (Imp.).

Membranous Croup.—

- ℞ Calomel, 2 grains.
Bicarbonate of soda, 24 grains.
Powdered ipecac, 1 grain.
Powdered pepsin, 24 grains.

Make twelve powders, and give one every two hours.

—STARR.

Painless Blister.—

- ℞ Menthol, 20 grains.
Chloral hydrate, 20 grains.
Cacao butter, 30 grains.
Spermaceti, 60 grains.

Make into a paste.

—*La Médecine Moderne*.

Otalgia.—

- Chloral camphor, 5 parts.
Glycerin, 30 parts.
Oil of sweet almonds, 10 parts.

Introduce into meatus on cotton.

—*Ugeskrift for Læger*.

Spray for Whooping-cough.—

- ℞ Carbolic acid, 1 grain.
Menthol solution (four-per-cent.), 5 drachms.
Cocaine solution (three-per-cent.), 2 drachms.
Cherry-laurel water, 2 ounces.

Spray the throat every hour.

—SCHMIDT.

Hypodermatic Medication.—If a minim of phenic acid be added to a hypodermatic syringe full of the solution of the drug to

be employed, it will cause the absorption and action of the latter to take place more slowly.—*Medical Times*.

Muscular Soreness.—For this trouble cimicifuga is a practical specific—not alone for soreness, but in muscular aching or pain from whatever cause. If fever is present, its effects are much more certain when combined with aconite.

Jamaica Dogwood.—A combination of equal parts of tincture of Jamaica dogwood and tincture of black haw will be found of material service in neuralgia. Fifty drops are to be taken in the twenty-four hours.—HUCHARD.

Vomiting after Ether Anæsthesia.—One-quarter drop acid carbolie every hour for a few hours will usually control this annoying sequel to ether administration.—*Exchange*.

Sedative Astringents.—Bismuth, silver nitrate and lead acetate are the only sedative astringents. All other astringents are irritants.—*Homœopathic Recorder*.

Warts.—Salicylic acid and lactic acid, each fifteen grains; flexible collodion, two drachms. Apply night and morning.

Senile Pneumonia.—In the first stage an emetic is always indicated.—*Massachusetts Medical Journal*.

Urinary Suppression.—This is often relieved by employing poultices of digitalis.

Hiccough.—Capsicum in hot infusion is claimed as a specific.—*Medical Record*.

Itching in Eczema.—Apply fluid extract of jaborandi locally.—G. W. ROBINSON.

Pediculi.—Oil of sassafras will destroy not only the lice, but their ova.

Chorea.—Try progressive doses of strychnine.—*Medical Councillor*.

Hæmatemesis.—Obstinate cases often yield to *Acalypha indica*.

Medical Progress.

BICYCLE SADDLES AND THEIR RELATION TO RIDERS.—Much has been written about the injurious effects of bicycling, both to women and men, but it will take time to prove even the most reasonable theories. In the meantime, few desire to make themselves subjects for experiment, and there seems to be a large demand for something out of the ordinary in the way of bicycle saddles. There are conceded to be two elements of danger to be apprehended from ill-fitting saddles, and they may be briefly stated as being danger from spinal irritation, resulting from constant jar, acting through a springless saddle, and danger from the irritation and pressure upon the soft parts forming the base or floor of the pelvis.

The latter is the more grave, and there can be no question that serious injury is likely to occur from this pressure. It is useless to compare the seat on a bicycle with that on horseback, but even if the comparison were made applicable it would only be necessary to assert that horseback exercise indulged in excessively is followed by special lesions.

So generally have the injurious effects of ordinary saddles, when used by women, been commented upon, that we will simply pass that over as self-evident to all professional men. But there may be an element of danger to male riders to which so far we have seen no reference and to which it may be well to call attention.

A prominent physician recently gave it as his opinion that in a good many cases sterility in males was likely to be a result. As an instance of the tendency of constant pressure upon the soft perineal structures to produce this result, he mentioned one or two Asiatic tribes who live entirely on horseback, and who are phenomenally effeminate or emasculate, and commonly sterile. That this condition would be a public benefit so far as some of our young men are concerned, none would deny, but if it was likely to become at all universal it would become a public injury.

Fortunately for all concerned, those who make a business of manufacturing bicycle accessories are pressing forward in order to fill the emergency, and numerous models of saddles have been devised. The object in all of them is apparently to build a saddle in such a manner that the rider, in sitting upon it, shall occupy the natural position which one assumes when seated on a chair, and be entirely free from that pressure which must be present when the rider is suspended upon a saddle of ordinary make. Having given

the matter some thought, I determined some time since to devise a saddle which should meet all indications for comfort and satisfy the demands of the average rider. In the meantime, however, several saddles appeared in the market which included, to a large extent, the plans already conceived, showing the truth of the old adage, that frequently ideas of importance are developed simultaneously in the minds of different individuals.

Ordinary saddles may be divided into two classes, both of which are supposed to follow the idea of the equestrian saddle, but which differ in very important particulars. They may be differentiated as saddles with springs and those without, and of the two classes the former, though designed for the comfort of the rider, are, perhaps, the more dangerous. The important particular in which they differ from ordinary equestrian saddles is the fact that the pad or seat is suspended between peak and cantle, and, there being no support across the width of the saddle, the rider is in most cases suspended upon a narrow ridge or leather strap, which follows the curve of the soft parts at the base of the pelvis from front to rear, and brings a constant pressure to bear on those parts.

If an equestrian simile is to be sought for, the case might be likened to riding a sway-back, attenuated, bare-back mule. A large class of riders, especially those among the scorching class who ride hard, claim that they do not have use for the saddle, as they ride on their pedals. This is almost a tacit admission that they cannot make use of the saddle even if they desired to do so.

There is, however, a large and increasing class of riders who ride for the pleasure there is in it, or for business purposes, and not simply to get there ahead of the fast express. To these, some of the more modern saddles may appeal. The great point aimed at in this latter class of models is to do away with the objections previously referred to and to construct a saddle that will not interfere with free and speedy action, but at the same time be a comfort to the rider, and not followed with evil results.

I have tried several of these models and have a good word to say for all of them. They are all a move in the right direction. One of the most popular of the recent saddles, and one which has given us the utmost satisfaction and comfort, is that known as the "Christy." Leather is used for the padding, a very important point, as the heat developed on rubber pads, as well as their unequal compression, condemns almost all the different patterns of pneumatic saddles.

The subject sketchily embraced above and

only faintly outlined is, as intimated, one that deserves more serious consideration than it has yet received from the profession. If all the world will go a-wheeling, it is important, at least, to have some idea of the dangers to be avoided in such exercise. With each new method of motion are connected new and unforeseen complications incidental thereto.—W. H. BURR, in *Medical and Surgical Reporter*.

EXHIBITION OF THE SKELETON OF A EUNUCH.—In the large cities of Egypt, chiefly in Cairo, one meets on the streets quite a number of eunuchs attached as servants to wealthy families, and especially employed as guardians of women confined in the harems.

As Godard observed, these unfortunate fellows present, when they are adults, a very slender stature and shape, by which they are easily recognizable even from a distance. In childhood the castrated in no wise differ from other children of the same age; but as soon as they reach puberty their growth occurs with great rapidity, and in a short time they measure almost two meters, perhaps more.

During a stay in Egypt I had the opportunity of dissecting in Cairo the body of a eunuch, about twenty-five years old, coming probably from the Echillouk's lands situated in the regions of Bahr el Gazal, far south of Khartoum. The cranium was well formed, but the maxillary and dental prognathism was of the most pronounced type. The size of the skeleton was 1.96 meters, while that of the subject alive would certainly be 1.99 meters.

The thorax seemed very short when compared with the length of the lower limbs; the pelvis very small, almost atrophied. On each side the obturator foramen was so large that there existed between them but a very narrow symphysis pubis.

The long bones were all exceedingly slender and did not present the crests intended for the insertion of muscles. The humerus was comparatively short; the radius and ulna long and weak; the metacarpals and phalanges very elongated, constituting a hand of lengthened and narrowed build, almost simian in shape. The femur was very weak, with hardly any curvature; the tibia and fibula both very slender and surpassingly long; the feet flat; the metatarsals and phalanges also very slender and very long.

The unusual lengthening of the limbs, chiefly the lower ones, was very remarkable, and corresponds to what we can verify in animals.—The wings of the capon are not more developed than those of the cock,

but its very long legs give to that fowl a quite particular appearance; again, the bull, whose limbs are shorter than those of the ox, has his hind limbs in particular less developed than the latter, and it is chiefly the lengthening of the hind limbs that straightens in the ox the line of the back at the hind quarter, which is always sloping in the bull. The ablation of the testicles, therefore, when performed before adolescence, brings on an increase in length of the abdominal limbs.

In Egypt, castration is performed on boys from seven to ten years old, by the monks of certain Coptic convents, who reap a good profit by supplying the harems of wealthy Mussulmans with these mutilated victims. The operation is made in two different ways. The first consists in cutting off with a razor the sexual parts as near as possible to the pubic region, carrying away in a single stroke both the penis and the scrotum, when the patient is buried almost up to his neck in some fine dry sand for the purpose of staying the hæmorrhage; after four or five days he is dug out and the wound dressed with a few rags sprinkled with oil. The second consists in dividing, or rather in crushing, the spermatic cords and the penis, by means of a strong twine whose extremities the operator pulls apart with all his might; the sufferings of the child must be horrible, but hæmorrhage is not so much to be feared; consequently the sufferer is not buried in sand, but instead his wound is dressed with acacia bark, which is rich in tannin.

In either of the two procedures entailing these barbarous mutilations, two-thirds of the children succumb.—M. LORTET, in *Lyon Médical*.

PASTEUR'S NONSENSE.—Pasteur was the most colossal humbug of this age. He fathered a theory which switched the medical profession off the broad avenue of therapeutics, along which it was making such gratifying progress, on to the blind siding of bacteriology. His course shows how easily a man may fall a prey to dry rot under governmental protection. How much easier it is to worship false gods than to live up to the severe exactions of Truth.

Pasteur was not a great man, nor even a very learned man, but he was gifted with great shrewdness. He knew that it was an age of ideas, and he thought it did not very much matter whether the idea was true or false, since, probably, none could intelligently gainsay him. He depended upon the novelty of his theory, backed up by governmental endorsement, to obtain him recognition, and

not without success, for the medical profession is prone to run after every fad which wins the approval of place and power.

But never mind what Pasteur said, what did he do? It is claimed that he stamped out the silkworm disease of France. How did he do it? He separated the sick from the healthy worms and made the necessary changes in their environment. But the advantages of improved sanitation and segregation of the sick were known long before Pasteur's day.

He claimed to have discovered a method of curing hydrophobia by inoculations of anti-rabic virus, but his treatment has become a by-word of scorn and derision in its birthplace Paris, and the mortality statistics of the disease have steadily increased since that date.

He declared that germs were the causative agents of disease, and the profession echoed his sentiments until to day we have the stupendous spectacle of a science whose foundations consist entirely of dogmatic assertion. Not one single satisfactory proof has ever been adduced. The bacteriological platform is riddled with interrogation points. Its most ardent advocates have hedged considerably. It is no longer bacteria which cause disease, but certain poisons which they elaborate, and the system must be in a lowered condition to furnish an attractive lodging-house for germs. One thing the bacteriologist has never explained, and that is, why, when the system is in a "lowered condition" one time, the pneumonia germ visits him, while the next time he is down the diphtheria bacillus drops in. Something like racing, we suppose. It is previously decided among these intelligent microbes when each one shall have its inning.

Those of us who believe that germs are effects, not causes, have no difficulty in accounting for this. We know that different diet and different environment produce different forms of life, and we believe that, when in the course of a disease a certain soil is produced, the germ most suited to that soil will be developed therein. We see this exemplified outside the body, certain germs being capable of propagation only in certain media.

But Pasteur, however shrewd, was shortsighted, for, in the undying words of the poet, "Truth, crushed to earth, shall rise again; the immortal years of God are hers." He who would rear a lasting monument to science must pass his claims through the crucible of experience, and his design must include the universal welfare of man.—DOCTOR J. J. LAWRENCE.

LAUGHTER AS A SYMPTOM OF DISEASE.—

From Austria comes a curious account of a man suffering from a nervous disease that manifested itself in paroxysms of laughter. The patient, whose case was described before the Psychiatric and Neurological Society of Vienna, was thirty years of age and had been subject for three years to fits of laughter, which occurred at first every two or three months, gradually increasing in frequency to sixteen a day.

The attacks occurred especially between 9 in the evening and half past 6 in the morning, and in greatest frequency between 5 and half past 6. Some occurred also during the day, however the patient happened to be occupied. In the intervals between the attacks, and immediately before and afterward, the man was perfectly well. The attacks set in with a sense of formication arising from the toes of the left foot, and the patient would fall to the ground unless he could reach some place to lie down. When this feeling reached the level of the left nipple the patient lost consciousness briefly—for two seconds, he estimated. Then followed tonic spasms,

less pronounced on the right side than on the left. Often the patient lay on his face. The mouth and eyes were closed spasmodically, the eyeballs turned upward; the pupils were dilated and unresponsive to light. At the height of the attack the patient at first smiled, and then laughed aloud without other sign of merriment. The entire attack occupied about two minutes. On two occasions there was loss of consciousness. The patient had suffered numerous injuries from falls, and his tongue presented several scars. . . . At the age of fifteen years the patient had suffered injury of several fingers, of the right thigh, and of the right side of the face. He had for a year or more, several years before his attacks began, indulged in alcohol to excess, and had been much depressed by the death of his father.—*Medical News*.

EXPLORATION OF BRAIN WITH NEEDLE AND SYRINGE.—This method is proposed in lieu of trephining, and its simplicity and safety recommend it as an easy means of reaching a great number of serious and complicated cases, notably brain abscesses, cysts, etc., while hard tumors can be earlier diagnosed and located.

The *modus operandi* is most simple: The point of puncture on the scalp is made aseptic, and an opening made with a sharp bistoury down to the bone. The drill employed is that ordinarily used by the watchmaker, to which is added an adjustable guard to pre-

vent unlimited penetration through the brain after passing through the bone. When the inner table is reached it is worked more cautiously. The penetration of the skull is easily completed with the point of a No. 1 aspirator needle attached to a syringe.

Several holes may be drilled at a distance from each other at the same time. No apprehensions need be felt as to hæmorrhage. The writer has several times explored the brains of dogs at several places at one sitting, and there was never any trace of hæmorrhage. One of the dogs was subsequently killed, and no trace of hæmorrhage worth mentioning found. In the autopsies of Spitzka and Schmidt, where the subjects had succumbed in the natural course of the original disease, there were no traces of hæmorrhage.—EDMOND SOUCHON, in *New Orleans Medical Journal*.

THE METOPIC SUTURE.—This is the name given by anthropologists to the persistence of the frontal suture. Several investigators have attacked the problem of the significance of this suture, but the most thorough study is that by Doctor G. Papillault in *Mémoires de la Société d'Anthropologie de Paris*. After a very detailed investigation he comes to the conclusion that it has no sexual significance. The brain is the primary cause of metopism; not that metopics have an intellectual superiority over other people, but a superiority in the relative weight of their brain. There is a preponderance of complicated sutures and wormian bones in metopic crania, but these are less marked in the races in which the weight of the skull increases equally with that of the skeleton—in other words, in what one generally terms the lower races. Civilization, in multiplying and knitting the bonds of social union, in augmenting in the struggle for life the power of the intelligence, and in diminishing the preponderance of brute force, permits those who are intellectually endowed to live and prosper despite their muscular weakness, and thus it also becomes one of the most important factors of metopism.—*Nature*.

TUBERCULOSIS.—Where the temperature persists above 100° without any apparent cause, tuberculosis should be suspected and sought for.—*Canadian Practitioner*.

FATIGUE.—The blood of the tired animal is poisoned, and when injected into another animal causes the phenomenon of fatigue.—SIR MICHAEL FOSTER.

The Medical Age.

VOL. XIV.

DETROIT, AUGUST 25th, 1896.

No. 16.

Original Articles.

THE PRE-ASTHMATIC STATE.*

BY EPHRAIM CUTTER, M.D., LL.D.

It is impossible to practice medicine forty years and not see some curiosities; and if all practitioners would report the anomalies they have seen, the stock of knowledge would be greater and more valuable than now. Hence this mite contributed.

The accompanying figure is from an outline drawing of a crystal found, amongst many others, in the sputum of the late Colonel W. T. Holt, of Denver, Colorado, who left New York City to escape asthma. It is magnified 800 diameters, and, it will be noted, is a double-ended bifurcated crystal. The artist did not project the twin terminals into roundness, that appeared pointed like a steeple. As a whole the crystal was flat, like a uric-acid crystal, and the reëntrant angle was square at the inner part, as figured. Altogether it is one of the most striking forms found in the morphology of sputum. Its sharp points, like those of a carpenter's compass, were apparently capable of pricking; and this is what these crystals do in asthma, and the neurotic results that accrue are explicable by this mechanical action.

How came this crystal to be found? The Salisbury dictum that "Asthma is a gravel of the lungs" having been proved to me by long and careful examinations of asthmatic sputa under the microscope, and the New England Hay Fever Association having pub-

licly asserted the medical profession knew absolutely nothing of the real cause of hay fever, I for one felt as if I could not calmly submit to this imputation; and I did not. At the time I did not know of Salisbury's essay on Hay Fever, but set about studying so-called "cured cases" of hay fever. I put myself in connection with Colonel Holt, as an old patient "cured" by Colorado climate, and he put me in connection with other "cured" cases in the following way: they were asked to collect a small portion of their morning expectoration on a piece of white writing-paper, let it dry away from stove or sun heat, and then mail to me. Thus I secured many samples of sputum from people in distant parts of the world, and these, when wet with water, proved to be very satisfactory morphological specimens.

I expected to obtain normal sputum, but instead I found in all granular gravel, massive gravel, crystals, giant mucous corpuscles distended with granular gravel, and in some cases the *Spirulina asthmæ* found in asthma sputum proper. The crystal outlined in the accompanying figure is one of the forms found. There were examined, in the interval period when they called themselves cured, in all some eighty cases of asthma and hay fever; and *all* furnished the morphological evidence of asthma. I announced the result to Colonel Holt, who replied that Colorado cured hay fever and asthma *only as long as the subjects remained in Colorado*, and that, strictly speaking, the cases were not cured, because the symptoms would come on when the local climatic influences were changed by locomotion. This was a great surprise to me. So I concluded hay fever must be merely a form of asthma, or gravel of the lungs.

On further study, it was found the abnormal sputum morphology persisted in the intervals of paroxysms; or, in other words, the

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asthmatic sufferer is like a loaded gun, ready to go off when the trigger (exciting cause) is pulled. The predisposing cause is the gravel; but causes that will excite common asthma will not excite hay fever, and *vice versa*.

After these investigations were concluded, Doctor Salisbury showed me his Hay Fever essay, taking beforehand these same grounds, and hence making me simply a witness to their truth, and thus more worthy of credence.

The nature of these asthmatic crystals is as follows: Triple phosphate; uric acid; oxalate of lime; cystine; and some constituents unknown. The double-ended bifurcated crystal herein figured may be conjectured as uric acid, though it was cream-colored; the majority of uric-acid crystals are double-ended, and of course the coloring matter of the urine does not obtain in the air-passages.

To one who has for years studied the morphology of the urine, fæces, skin, and blood, and found such crystals common therein, it is no surprise to find them in the sputum; indeed, the philosophy of their presence seems to be that the *primæ viæ* of kidneys, bowels and skin are, from the abundance of these crystalline bodies, unable to carry them off by the urine, fæces, and perspiration, hence the lungs are obliged to take on compensatory activity and excrete, else the patient falls ill and perhaps dies.

The presence of these crystalline bodies is as irritating as the points of the finest cambric needles would be if impinged on a sensitive skin twenty times a minute. With varying degrees of resistance, the systems of different individuals tolerate these gravels, until finally a cold or an irritant inhalant (ipecac) upsets matters, when the bronchial muscles are seized with spasms, much the same as the muscle of the hand in writer's cramp.

The pollen of the artemisia, or Roman wormwood, found in August and September, particularly excites this neurotic storm in some cases—which storm is then termed hay fever because it occurs during the season of the hay crop. If the sufferers from this malady go to the White Mountains, Colorado, or some other elevated locality, the paroxysms cease, and then they erroneously consider themselves cured.

Again, people may have this gravelly spu-

tum for a considerable time before they come down with asthma or hay fever. *The morphology of their sputum thus becomes the first sign of the pre-asthmatic state; and this is the best time to treat the disease.*

Naturally, the great principle of treatment is to get rid of the gravel of the lungs. To do this it is necessary to use hot water freely—say one pint an hour before each meal and on going to bed,—with the view of furnishing plenty of fluid whereby to hold these animal salts in solution, and to aid their more ready exit from the body. The abundance of crystals shows an overplus of their salts and a slow formation. Granules show quick precipitation. The best water is the distilled; next, spring water free from salts.

These gravels have their origin in the blood. I have often found them in the circulation, in kine as well as in man, as has also Doctor Salisbury: thus I only corroborate his experience and views.

Vegetable foods in excess increase the production of these salts. A case in point is that of a physician forty years of age, president of a German vegetarian society, who resigned with horror and took meat diet because he found his temporal arteries were becoming calcified! Said he: "I know that ossified arteries at forty years mean death." Hence another great principle in the treatment of asthma is, *to reduce the amount of vegetable food*, and this includes foods derived from the Gramineæ, such as wheat, rye, etc., all of which predispose to gravels.

The lean chopped beef, broiled, not raw or dried up, sometimes called "the Salisbury steak," is the food *par excellence* in asthma until the worst symptoms have subsided; then food from the vegetable kingdom may be gradually and cautiously partaken of. And vegetable tonics combined with the *English* iodide of potassium, as a liquefacient, are then in order. Here we strike one for foreigners! for it is a shame that the American potassium iodide is not equal to the *English*, which excels all others for this purpose.

Sponge and tub baths should be freely used, because the skin is the largest eliminating gland in the body and should be kept in good condition for its work in order that it may relieve the respiratory tract.

The foregoing plans faithfully carried out

in a case of twenty-six years' standing, and a most severe one at that, readily accomplished a cure.

The intent of this paper is chiefly to call attention to the morphological field found in the sputum of asthma; but I cannot leave the subject without referring to the priority of discovery of asthmatic-sputum crystals.—Americans are accustomed to turn cold shoulders to their own discoverers: the warm shoulders are reserved for the foreigners. To my knowledge these sputum crystals were discovered and drawn before 1860 by Doctor Salisbury, and unless Doctor Leyden can go back of this he must yield all claim as to priority; Doctor Cushman's spirals ditto. On May 8th, 1884, before the American Medical Association, by means of lantern-slides I showed the gravels of the lungs and the *Spirulina asthmæ*. Not long after this appeared the German claimants, to whom Americans have given the credit!

Now I wish to be fully understood. Give to every one due credit, Germans, Americans, and all. But why should we accord to foreigners the meed of patronage or praise when Americans have just as good if not better claims to our consideration? There is, however, a higher obligation, and that is: physicians must give to their patients the benefit of the most advanced knowledge as to the causes of disease. The American contributions to calcareous diseases are vastly superior to the foreign, and there certainly is no reason why patients should be deprived of the benefit of them in, for example, the asthmas. My experience is: get rid of the gravels, and the asthmas go.

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MEDICAL EDUCATION: ITS DEFECTS AND PERVERSIONS.*

BY DOCTOR J. A. MULLEN.

Education, according to Gladstone's definition, is "man-making." Medical education, by the same rule, must be doctor-making; and this process, to be eminently successful in its results, must be conducted according

to the principles underlying education in general; it must be, as it were, the continuation of that education after it has passed through the various stages of the primary, secondary, high-school, and collegiate courses, the intellect of the young adult having reached a stage of development that fits it for the studies of a professional life. This standard is determined in each individual matriculant by an entrance examination, which of necessity should consist of special branches, the satisfactory passing of which should truly represent the educational, moral, and intellectual status of the applicant.

As a matter of fact, there is no universal standard governing the entrance examination in our medical schools, and the catalogue claim that a prescribed entrance examination in specified branches is exacted is in many of them "a mere form." Again, the efforts made to enforce real entrance examinations are often insincerely weak, and intended merely to aid in maintaining the semblance of a standard that does not exist, thereby enhancing the yearly income. So far as known to the writer, with one exception there is not a medical examining board or a board of health in the United States that has stipulated or decreed that the medical institutions in their respective commonwealths shall have and conform to a certain specified entrance examination. The New York law of 1889, as amended in 1890, requires every student to

— file with the Regents of the University of the State of New York, a certificate showing either that he possesses the degree of A.B., M.A., M.S., Ph.B., or Ph.D., received by him from a college or university duly authorized to confer the same, or that during or prior to the first year of his medical study within this State he has passed an examination conducted under the authority of the Regents of the University of New York State, or by the faculty of a medical school or college entitled to confer the degree of Doctor of Medicine, in accordance with the standard and rules of the said Regents, in arithmetic, grammar, geography, orthography, American history, English composition, and the elements of natural philosophy, or in their substantial equivalents approved by the said Regents; or that he possesses qualifications which the Regents consider and accept as fully equivalent to the above-named qualifications. (Report of Commissioner of Education, 1892-93.)

The regents of the State University have voted to confer the university degree of M.D.

* Read before the Texas State Medical Association.

only after one year's post-graduate study subsequent to receiving the degree of Bachelor or Doctor of Medicine from some registered medical school, and only on candidates who have spent not less than four years total study in accredited medical schools.*

The most important element in medicine, and the one which is to-day eliciting and receiving more attention than any other—the one, without any exaggeration whatever, which governs modern medicine—is prophylaxis; its application is just as essential in education as in any other department of medicine; and the sooner this fact is appreciated, and primary application made of it in medical education, the sooner and higher will the educational standard ascend.

The root of the great evil in our present system is the non-recognition and non-requirement in all the medical schools of a well understood, ubiquitously and permanently established entrance examination—an examination that shall require the applicant to be possessed of knowledge of such a character as will ensure his being a proper and suitable person to undertake medical study.

Any system of education, medical or otherwise, or any effort which has for its prime object the remedying of the effects of an existent and active evil, must, as a matter of common sense, be intrinsically and radically wrong; and it is just such a system which we of to-day are obliged to complain of, and which balks all sincere and earnest efforts to raise the standard.

The establishing of State Medical Examining Boards—the outcome of the most praiseworthy efforts of the medical profession—marks an epoch in the history of American medicine; but these institutions exhibit a lack of unity in standards, etc., that in many instances renders all their efforts nugatory. Note that in one State (New Hampshire) there is absolutely no legal requirement for the practice of medicine; thirty-five States and Territories have either boards of medical examiners or boards of health who issue licenses; in seventeen States the boards do not recognize the authority of a diploma from any medical school to confer the privi-

lege to practice; in eighteen, the boards rule by the phrase “a college in good standing;” in thirteen, the possession of a diploma is considered proof of fitness.

The law for the creation of an examining board was originally the idea of medical educators, and principally through their untiring efforts and educational zeal was it put, in more or less incomplete condition, upon the statute books of forty-nine States and Territories. In the seventeen States in which no diploma is recognized as a qualification, it would seem by the very passage of the Medical Act that neither the entrance examination, course or length of study, nor excellency of the final college examination, was considered up to the grade which guided the framers of the law or the gentlemen composing the board.

It is singular that the gentlemen passing this law should have directed all their efforts to correcting the pernicious results of an educational system which required no standard of entrance examination—no common gateway through which applicants must parade their scholastic attainments. Thus, so far as these States are concerned, medical teachers generally are dealing with an unknown quantity.

How much more gratifying it would be, and what a marked leap the medical standard would take, if the boards individually and collectively, instead of “locking the stable door after the horse is stolen,” would agree upon and enforce a universal and uniform entrance examination in *all* medical schools of this country, stipulating the standard of proficiency and the number of years of study, also the arrangement and character of studies to be taken up, and a thorough final examination presided over by *disinterestedness!* In this way only can there be complete and free application of prophylaxis in medical education. It is prevention that is needed, not palliative measures.

In eighteen States the possession of a diploma confers the right to practice only when the board of health or other body decree the college issuing to be “in good standing.” This has been interpreted as meaning that the board, etc., are satisfied with the entrance requirements, with the length of the term, character of studies, number of courses,

**Medical Record*, July 20th, 1895.

final examination, and all other items which aid in fully qualifying the graduate to practice—which is the same thing as saying that the board is cognizant of the present defects in our various medical schools and proclaims itself, for the present at least, incompetent to eradicate them.

Of the thirteen States in which the possession of a diploma constitutes the sole requirement for entering upon the practice of medicine, there can be little doubt that this qualification exists in name only. No attempt is made to differentiate between good, bad, and indifferent schools; consequently, advocates of higher educational standards cannot be surprised if very slow progress is made, even though certain of the examining boards and boards of health have now announced that they will not recognize any institution that does not exact a full three years' course of study and comply with other standard requirements—the particular requirements not stated—of education.

It may prove of some interest to note the number of medical colleges in the United States requiring a four, three, and two years' course of study. Of the one hundred and forty-four, there are sixteen regular schools with a four years' course; ninety-two have a three years' course; four a two years' course. Of the homœopathic schools, one has a course of five years; two, a course of four years; fifteen, courses of three years—none with a two years' course! The Eclectic school has nine institutions with three-year courses; one with a course of two years; none with a four years' course. The Physio-medical fraternity is represented by two colleges, both of which have, nominally, a three years' course. The remaining schools are post-graduate and preparatory.

It is highly probable that all exhibit a catalogue requirement demanding entrance examination, but how many adhere to their expressed good intention is a matter that cannot be solved by any statistical evidence; it is known that entrance examinations in a great majority of schools are not sincerely applied, and when applied are of exceedingly questionable character. Doctor Geo. M. Gould* says:

In the orthographic ignorance of the recent graduate there is a bit of hypocrisy to be exposed. Somebody is uttering false papers, as the lawyers would say, or false sheepskins—or, in plain English, some one is lying. All our medical colleges are pretending that their preliminary examinations are real, and not tricky shams and frauds. What is the fact? Have genuine preliminary examinations been held in the cases of men who spell after the manner of those cited herewith? [A list of one hundred and twenty-two words is added, as culled from the recent examination of the Pennsylvania State Board of Medical Examiners, representing the words wrongly spelled by the recent graduates who applied for State licenses.]

Some of these gentlemen, writes the examiner who kindly sent us the list, were graduated this year by medical colleges in Philadelphia.

It is highly improbable that these men could have successfully passed the entrance examinations of these institutions without their orthographic ignorance being detected.

"The medical is a profession like any other, and the epithet 'liberal' will not be understood in a country where only one thing is desired, namely, to gain with the greatest rapidity the greatest possible amount of money, and where the effort is only to perfect one's self in his art as a means of becoming more wealthy. Therefore, of course, no one thinks of erecting high barriers at the entrance to the schools. This is the reason why admission into medical schools is so very easy." This is the utterance of Doctor Baudouin, of Paris, who undoubtedly exercised all his perceptive faculties during a tour of inspection among our schools; he has also drawn unusually accurate deductions, for there should be very little doubt about the many defects of our medical education, which are still active and have remained uncorrected ever since the first medical college was founded in this country, the most potent being a very apparent disinclination on the part of medical educators to establish and insist upon universal and proper entrance examinations.

Very few boards of health or medical examining boards insist upon or even suggest to the medical schools of their respective States the advisability of conferring and adopting a standard of entrance examination which shall regulate the admission of prospective students; and yet it must be admitted no reasonable standard of medical

* *Medical News*, August 10th, 1895.

education will ever obtain until the importance of this measure is recognized.

The requirements for entrance into the majority of medical schools may be summed up as meaning a "thorough primary education."*

Eight universities have established preparatory courses for the medical faculties, and I am convinced that the men who lead the medical institutions of the United States are strongly exercised over the system that actually exists in the greatest number of medical schools. They acknowledge the low standard of the medical body of their country, and attribute it to the following causes: the great number of medical schools, which is out of all proportion to the number and wants of the population; and excessive shortness of the course.†

The establishment of medical examining boards in the face of a universal lack of a standard entrance examination has brought about a condition of affairs little expected; it has shifted the responsibility from the schools where so much medical knowledge may be purchased for so much money, to the shoulders of the examining boards, leaving many schools little else than institutions where for a stipulated sum three years of medical teaching are handed over the counter, without regard to quantity or quality. Thus the best degree in seventeen States is not worth the paper on which it is written; the colleges no longer license practitioners, but simply educate men to try for a license to practice medicine.

In Washington and Chicago a few medical schools have combined commercial greed and business enterprise with medical education, and instituted night courses, especially designed for those employed during the day, who may thus procure diplomas that will entitle them to practice medicine. I am entirely ignorant of the grade of entrance requirements, course or length of studies, but of the existence of these institutions there can be no doubt.

The number and need of more medical schools is a question that materially affects the standard of education, and the profession is more than passingly interested therein. Doctor Marcel Baudouin says, referring to the birth of medical schools in this country:

It must be confessed, that which prompts the action is the desire of the physicians to add to their

title of M.D. that of Professor, more than the wish to be useful to their fellow citizens or the future young men of the country. These physicians write out statutes and then apply for a charter, which is seldom refused. The Americans possess, therefore, in proportion to the number of inhabitants, four times as many medical schools as France.

Politzer, of Vienna, who was delegated by the Austrian Government to investigate the medical schools on this side of the Atlantic, reported:*

The United States, with a population of sixty to sixty-five millions, has one hundred and forty-eight medical schools, while the total number of medical schools in Austria and Germany together is but twenty-nine; Russia, with a population of one hundred millions, has but nine medical schools; Italy but twenty; Brazil, two; Japan, one.

This would seem to indicate that in America the teaching of medicine is an exceedingly difficult process. The following is a list of medical colleges in the United States to date, arranged by States according to their numerical strength: Arkansas, Kansas, South Carolina, New Hampshire, Connecticut, Vermont, and Wisconsin, each *one*; Maine, North Carolina, Alabama, Oregon, Texas, *two* each; Colorado, Louisiana, Massachusetts, Minnesota, Nebraska, Virginia, each *three*; Kentucky, Michigan, and the District of Columbia, each *four*; California, Georgia, Indiana, each *five*; Iowa and Maryland, *six* each; Pennsylvania and Tennessee, *seven* each; Ohio, *twelve*; Illinois, *thirteen*; New York, *fourteen*; and Missouri, when last heard from this morning, *seventeen*, or almost twice as many as the Empire of Russia,—in all, one hundred and forty-four, ignoring the schools in Canada which annually send a considerable number to swell the ranks of the profession.

The efforts of Doctor Jerome Cochran, of Montgomery, Alabama, in an attempt to prevent the enterprising creators of a medical college in Birmingham from using his name to further the success of the embryo institution without his knowledge or permission, provoked Doctor George F. Shrady to give editorial utterance to the following:†

Doctor Cochran will evidently have the majority with him, not only in Alabama, but through-

* Doctor Bonet Maury, University of Paris.

† Doctor Marcel Baudouin, *loc. cit.*

* *Medical Record*, August 11th, 1894.

† *Medical Record*, July 28th, 1894.

out the country. We must regard the establishment of a new medical college in Alabama as a contravention of the best interests of the profession and the people. We already in this country have three times, yes six times, as many medical colleges as we have any need for. In this opinion we are sure we will be sustained by nine-tenths of the doctors in Alabama—in the South—in the whole of the United States. Nevertheless, the exploitation of a medical college is a business in which honorable men may honorably engage. *The process of organization** is simple enough. It is only necessary to form a company of seven or eight doctors, build a big brick house, and apply to a complaisant legislature for a charter, and lo! the thing is done.

Doctor W. C. McGee,[†] commenting upon Doctor Cochran's efforts, added:

Let every State follow the example of Alabama, and limit the number of colleges chartered. There is no excuse even for the great State of Ohio having more medical colleges.

Doctor J. M. DaCosta, in the Report of the Commissioner of Education, says:

The chief difficulty in making a high standard universal lies in the number of medical colleges. It is indeed a sorry admission, that the medical schools in this country are the greatest enemy to medical progress—not in themselves, but in their number. *The remedy lies in their amalgamation.** Let the absurdity cease, of small towns having three, four or six of the struggling institutions, no one of which can have a vigorous life.

The Illinois State Board of Health announced that any school having a course of less than three years would not be considered in good standing, and that its graduates could not practice in the State without first undergoing an examination. It may be said that this, coupled with the influence emanating from the resolutions of the American College Association, has been widespread in its results, creating a desire among the different institutions to elevate the standard. Again, the American Institute of Homœopathy gave a helping hand when in 1888 it decreed that: "After the college sessions of 1890-91, each and all of the homœopathic schools of America will require candidates for graduation to have pursued at least three years of medical study, including three full courses of didactic and clinical instruction of not less than six months each."

Doctor Marcel Baudouin,* from whose observations one can always derive facts both instructive and interesting, says:

"The States confine themselves to recognizing the creation of medical schools by according to them a charter and registering the diplomas which they confer, without endeavoring to ascertain the intrinsic value of the same."—The first part of this assertion is unfortunately correct, but the latter, though true not very long since, is not now a universal fact.

The States of Oregon, Montana, and Minnesota, after 1898, will require an attendance upon four courses of lectures by all the graduates who desire to settle within their borders. The Association of American Colleges in 1894 resolved that students graduating in 1899 or subsequent sessions should be required to pursue the study of medicine four years and that each of the four annual courses of lectures should not be of less duration than six months. The Missouri State Board of Health has ordered that the minimum requirement of persons who intend studying medicine shall be the presentation of a diploma from a reputable literary and scientific college or high school, or a first-class teacher's certificate.—Certainly no one can fail of being gratified by this action of a State possessed of seventeen colleges.

Doctor Wm. H. Welch, of Johns Hopkins University, holds that it is highly desirable the medical matriculant be a liberally educated man; that is, he should hold a degree in arts or science which will be an index of that knowledge and culture which, apart from any immediate bearings upon professional studies, are recognized as entitling their possessor to be ranked among liberally educated men. Further, he suggests there are certain points which should be clearly understood as regards requirements; the preliminary education of a medical student should not only be a liberal one (as indicated by a degree in arts or science), but should include a specific amount and kind of knowledge of physics, chemistry, and biology, besides a reading knowledge of French and German.

It must be admitted that the average

* Italics mine.

[†] *Medical Record*, September 8th, 1894.

* *Loc. cit.*

amount of preliminary education has increased among our students, for now many academies and colleges include in their curricula the very branches mentioned by Doctor Welch. It is eminently desirable, in the interests of medical education, that all the schools make these courses obligatory and more thorough; and that would-be medical students who do not possess the requisite amount of knowledge upon these subjects be compelled to begin their medical course one or two years earlier than those who by an entrance examination have been found duly qualified.—In other words, all applicants who do not possess the requisite knowledge of these subjects should be compelled to make up the deficiency ere they are allowed to matriculate.

The Faculty of Paris have urged that chairs in chemistry, physics and natural history be created, supplementary to but distinct from the regular medical course—as a means of making known the medical applications of science and of scientific methods. This recommendation was supported by statistics of matriculating examinations, which showed that more than a third failed—often one-half the applicants failed two or three times—and that a great many were thereby permanently discouraged.

President Elliot, of Harvard,* insists that no subject should be attacked by the student unless it is to be pursued far enough to get from it the training it is intended to supply; also that a selection or election of studies is a necessity if the student hopes to derive the greatest possible benefit or information. This principle should underlie the methods of instruction in all colleges.

To stimulate students to pursue academic courses, some medical schools offer a premium, as it were, by permitting such to enter the second year, thus enabling them to complete their medical studies one year sooner. The fact that about one-fourth of the medical schools now grant this privilege is evidence that medical educators recognize and appreciate the true value of a course in arts or sciences. The remaining three-quarters may or may not realize the intrinsic worth of

these studies as determining the graduation of high-class physicians; at any rate, they furnish very meagre evidence that they do, and meantime fail to endorse the adoption of the standard of preliminary education now in use by the better schools.

In Europe the period of undergraduate medical study is nowhere less than four years: in Sweden and Switzerland it is nine or ten years; in Spain, seven years; in Italy and Holland, six years; in Austria, Russia, Portugal, and several universities of Great Britain, five years. And in Canada it is five years.

There is now all over the country a growing disposition on the part of universities to take charge of medical teaching and to develop the medical with all the zeal formerly given to other departments—it is seen in California, Colorado, Louisiana and Texas as strikingly as in the Eastern States. There is nothing but good in this. The power, the means, the spirit of the university go out to its branches; the university in turn gains by the reputation of its medical faculty, and by the recognition that medicine is an essential part of the new learning which leads on to the highest attainable civilization. (Da Costa.)

The President of the French Republic, recognizing the importance of higher medical education, has issued the following decrees:

Candidates for the doctorate in medicine, in order to take their first inscription, have to attain the diploma of a bachelor of secondary classical instruction (*lettres philosophique*) and the certificate of physical, chemical, and natural sciences.

There is instituted in the faculties of science a preparatory course of physical, chemical, and natural sciences. To this instruction are admitted young men provided with a diploma of Bachelor, and, after examination by the faculty, the young men of at least seventeen years of age are provided with proper certificates.

At the end of the course, and after examinations are passed before the faculties of the school, a certificate of physical, chemical and natural studies is delivered.

In this country the post-graduate school is playing an important rôle in raising the standard of medical education,—after the State boards they constitute by far the strongest element in assisting educators to

*Address before the American Institute of Instruction, 1894.

place medicine upon a higher plane than it has heretofore occupied in the United States. Of these, nineteen in number, fifteen are regular, two homœopathic, and two Eclectic. The post-graduate feature of medical institutions unmistakably exerts a powerful influence in correcting the faulty and incomplete results accruing to inferior medical teaching and too many colleges. The assistance thereby given to medical education is apparent in almost every hamlet. They are particularly helpful in preparing and training for special lines of practice, such as ophthalmology, otology, etc. The post-graduate school has shown that the colleges were giving inferior instruction in special branches, and the latter have acted upon the hint thus given; consequently at the present time very few institutions are without some form of clinical teaching.

The State boards are not slow to recognize that something must be done to improve the present system of medical education. The thirty-five boards, representing as many States and Territories, should receive encouragement and assistance in their efforts in this direction. They have just begun a beneficial crusade, and the obstacles in their pathway are many. But they must first of all secure the adoption of some standard of entrance examination, and make the same a law to which *all* the medical schools within their respective States must comply.

Any essay upon medical education in the United States would be incomplete if it did not contain full mention of the rôle and influence of woman therein. Our country offers the most liberal and ubiquitous opportunities for the fair sex in every branch of science. There are sixty-four schools in which women can receive a medical education, seven of which are exclusively for their use, and one representing the highest standard. Of these, thirty-six are regular, thirteen homœopathic, nine Eclectic, four post-graduate, and two Physio-medical. Fifty-three (or 82.8 per cent.) of the schools have a three years' course; seven, a four years'; one, two- and three-year courses; and one, courses of three and four years. During 1892-93, of the five hundred and fifty-nine students in the schools reserved exclusively for women, but forty-six possessed degrees.

Women are rigidly excluded from the advantages of a university education in Germany, may not become candidates for a degree in any medical school, and consequently are debarred attempting the State examination that confers the privilege of practicing. The admission of women to higher educational privileges was formerly forbidden by law in Austria-Hungary. In Spain, matters are decidedly worse than in Germany. The universities of England, Ireland, and Scotland, however, with perhaps one or two exceptions, are now thrown open to both sexes, and they are permitted to enter the lists as candidates for license and registration as medical practitioners. Sweden, Norway and Denmark make no sex distinction, but women are not eligible to State medical appointments. The broadest and most liberal privileges on the Continent, so far as the fair sex is concerned, obtain in Belgium, Holland, Roumania, and Italy. It was first decreed that women might enter the *École de Médecine*, Paris, in 1863, but French women appear to have failed to take advantage of this opportunity. Russia is liberal in the matter of educating women physicians, and in 1893 five hundred and forty-six were practicing within the limits of the Empire; and of the three hundred and eight Muscovite women studying medicine in Zurich, Geneva, Berne, Basle, and Lausanne, the majority returned to Russia to practice. Further, the Imperial Government recently appropriated \$200,000 for a Woman's Medical School at St. Petersburg.

Canada has one medical school exclusively for women.

The Woman's Medical College of Pennsylvania is generally admitted to be without a peer in its class, and its status has done much to assist in raising the medical standard all over the country.

The question may be asked: How has the attendance of students been affected by the requirement of another year of study?

Adding one year to the course means not only an increase of time, but also additional financial outlay. Thus it might naturally be expected many young men would seek other lines of study and employment; but, instead, statistics show a steady increase during the past five years.—In 1888-89 the number of

medical students was 15,029, which reached 19,752 in 1892-93.

The fact that the number of students has enormously increased under the present system of medical education is fully as apparent as is the baneful influence exercised by an excess of medical schools, which fact of itself is convincing that the present system is radically wrong.

The defects that exist in the American methods of medical education are numerous and most pernicious, extending from the Atlantic to the Pacific and from Oregon to Maine. The present system is a failure, and a common standard is demanded—one that will ensure like matriculation examinations, like curricula, and like methods of securing a degree: a standard that will wholly do away with municipal, State, and collegiate control. At the same time it is demanded the number of medical schools be reduced. "Since 1880, fifty-two medical schools have been organized in this country."* The profession at large is clamoring for radical reform. To be sure, new medical examining boards are constantly being formed, and older ones putting forth more rigid restrictions intended to suppress and prevent present defects, but in spite of all the great evils still remain unabated.

Two special evils must be eradicated before our educational system can be rescued from its chaotic condition: First, the lack of uniform and competent *national* entrance examinations for all medical schools; second, the unrestricted multiplication of medical schools—a national law is demanded for the government and limitation of the number of medical schools, and the establishment of a standard for the teachers employed therein, who should be freed from any personal ambitions or aims outside of the school.

The passage and thorough administration of a uniform National Act cannot but remove both defects. Now men who are honestly endeavoring to raise the standard are sadly handicapped by personal aims and ambitions, and by the pernicious competition of inferior schools. J. M. Da Costa has suggested "amalgamation" as a means of reducing the present number of colleges, but it is a question whether

this will at all obviate the evil. National control and regulated entrance and graduation examinations, carried out by disinterested individuals, would, however, speedily bring about "survival of the fittest" without any other effort. There is absolutely no better way by which these defects and perversions can be removed than by national legislation; the French Republic ineffectually tried other methods, and it was only then, and under the supervision and control of a Minister of Education, that the teaching of medicine was placed upon a rational and scientific basis.

Before any law for the national control of medical education is entertained or discussed, it is a matter of absolute necessity that the principles underlying and governing primary education be succinctly and specifically stated, as their application and general usefulness are as important and necessary in medical teaching as in the primary schools. The most wholesome and philosophic principles are thus enunciated by President Charles H. Elliot, of Harvard:

First: Individual instruction—small classes in physical diagnosis, individual instruction in the "out-patient departments," and a small number to assist in operations, etc.; instruction in the *quasi*-pharmaceutical and chemical, histological, and bacteriological laboratories, and by means of dissections and operations on cadavers.

Second: Education of the special senses, to follow the preceding forms of individual instruction, and embodying all those processes that cultivate seeing, hearing, touching, and doing.

Third: The main object of education, now-a-days, is to give the pupil the power of himself doing an endless variety of things which, uneducated, he could not do. This in medical education is brought about by demonstrations of operations and examinations, their technique and methods of application, and such procedures as can be performed by the student himself.

Fourth: Selection and election of instruction. In no other branch of education is there more room for the free use of this principle than in medicine. The medical schools have, by constant application of election, incorporated studies in their curricula that are of vast assistance in increas-

* Report of Commissioner of Education.

ing and maintaining the medical standard, though some branches, such as chemistry, physics, and biology, are far from satisfactory, being mixed here and there with the first-year courses on physiology and anatomy, and even then are all too short and incomplete.

Fifth: Discipline. Permanent motives, prudence, caution, etc., can only follow as the result of a thorough education, consisting of the principles of surgery, and practice and institutes of medicine, which should inculcate due regard and appreciation of their objects or uses, applications, etc. Specialization of teaching is well demonstrated by the post-graduate schools in ophthalmology, genito-urinary diseases, etc., and the very existence of medical education in this country.

Sixth: Administrative officers in educational organizations should be experts, and not amateurs or drafts from other professions. Teachers should have larger advisory functions in administration—this is absolutely necessary for the proper maintenance and control of any educational institution. The board of trustees should be composed of men thoroughly familiar with and alive to the principles and uses of education, and not individuals selected from ulterior motives connected with financial and political interests. More credence and consideration should be given to suggestions and advice from active teachers, for with few exceptions they are those who meet with daily evidences of the defects in the curricula, and consequently are the best judges of when, where, and how improvement and progress should take place.

I must again reiterate that the sole remedy for existing defects in medical education lies in national supervision and control of all instruction, preparatory and otherwise, regulating the number and length of studies, duration of courses, and superintending the final examinations disinterestedly, finally issuing a license which will permit the holder to practice in any State in the Union, and at the same time give him or her a practical and definite status abroad. Government should also regulate the number of medical schools.

State boards of medical examiners and boards of health have utterly failed to stan-

dardize the entrance examinations, and are unable, even if such was their desire, to force a national standard which will govern all alike.

A Board of National Medical Examiners, representing the interests of all the States, would constitute a most powerful means for rapidly and scientifically elevating professional standards, and tend to rid medicine of its internecine foes, whose utter disregard for good and honest teaching is displayed by the number of widely varying standards and grades now so prevalent.

The principle, a National Entrance Examination, if sincerely applied in every State and Territory, would in an incredibly short time decrease the excessive number of medical schools; since applicants, if obliged to comply with certain set requirements, will select the institution that offers the best and most thorough facilities.

As before remarked, there appears to be an intense and healthy desire among educators and medical institutions to arrange for a complete and thorough course for students preparatory to taking up medical studies—a course that will inculcate knowledge of the fundamentally scientific elements of medicine, thereby better qualifying them for the medical course. The need of such a preparation is recognized, and it would require very little to incorporate this in a National Medical Act.

An increase in the number and length of studies and duration of the courses is likewise recognized as a desideratum; colleges and universities announce elaborate curricula, but after all very few give sufficient time to even the most important branches.

That final or graduating examinations should be under national control, is evidenced by the fact that these in some colleges are as loosely conducted as are the entrance examinations. Some States by legal enactment have given evidence that they have no confidence in the graduating examinations of the schools, and so compel all who desire to practice within their borders to undergo a State examination. This in a measure would appear to interfere with the rights of American citizens, by denying them in one State what they may enjoy in another. A license from a National Board would over-

come this, and place all practitioners upon the same plane, ensuring a uniform standard that could readily be made to equal the best standards abroad; and finally, it would quickly place the responsibility of educating physicians where it rightfully belongs.

Houston, Texas.

INTESTINAL OBSTRUCTION BY GALL-STONES.

BY DOCTOR HOELZL.

In very few diseases occurring with equal frequency and commonly characterized by the severest and most ominous symptoms, is the diagnosis confronted with so many and often insuperable difficulties as in intestinal occlusion, at least so far as the cause and seat of the obstruction are concerned. In this category of cases—which it is often impossible to diagnose at all with certainty—belongs that form of intestinal occlusion caused by gall-stones. On the other hand, there are numerous cases in which the diagnosis, made at the bedside, is subsequently confirmed by the passage of stones which were in part spontaneously expelled and in part removed by surgical intervention: ground enough for weighing the possibility of gall-stones as the ætiological factor whenever there are symptoms of ileus.

The number of such instances reported is small as compared with the frequent appearance of gall-stones; and yet one may safely assume that many instances of merely transient intestinal occlusion (for which no proper cause could be found) were produced by gall-stones without their being suspected.

As with gall-stones in general, so also with the cases of intestinal occlusion which they cause, women are the most frequent sufferers. The grounds for this fact cannot now be discussed.

If gall-stones appear with special frequency during the latter years of life, the average age for occlusions is advanced somewhat further, for the reason, in most instances, that the stone requires years of growth before it can accomplish an intestinal occlusion. How large, now, must be such a gall-stone, in order to occlude the intestine? In answering this query, one must first form a mental image

of the normal intestine, excluding at the outset all thought of intestinal contraction through disease, for in the latter case the very smallest stone may, under certain circumstances, suffice to produce occlusion. It is not easy to state even an approximate size; but this much may be said with certainty: The ordinary stones which are pressed through the cystic duct in those cases of gall-stone colic which are so much dreaded, never suffice to close up the intestinal lumen; and it is a fact that in the cases generally cited the stones are described as of the size of a dove's or hen's egg. In two instances that came under personal observation the occlusions were produced by stones possessing a longitudinal circumference of seventeen centimeters and a sectional circumference of ten and one-half centimeters in the one case, and a longitudinal circumference of thirteen and a sectional circumference of nine centimeters in the other. The former had caused the most violent symptoms of intestinal obstruction, but the latter passed through the alimentary canal, encountering its first obstacle in the sphincter of the large intestine; and yet, smaller stones than the foregoing, present in normal intestines, have produced the most violent symptoms of occlusion. Thus it is evident that a definite size must be chosen as a minimum measure, but that other conditions are involved, as, for example, the insertion of the stone. Leichtenstern refers to an awkward introduction of the stones, one of them causing intestinal occlusion though of cylindrical form and relatively small size.

Aside from the character of the gall-stone, another factor to be considered is the breadth of the alimentary canal, and this at once suggests the query as to what is the most frequent seat of the occlusion?

Consider first only those cases which have terminated fatally, and in which an autopsy has yielded definite results. In almost all these, it was the small intestine in which the gall-stone was retarded, and most authorities seem to agree that the lower portion of the ileum is the place most difficult to pass, hence the most frequent seat of the occlusion. This may be explained by the diminution of the calibre of the small intestine as it approaches the cœcum, by the greater fixation and immobility of the lowest section of

the ileum, by the short mesentery, and by the resistance of the valvula Bauhini. Much smaller is the number of stones which remain fixed in the jejunum, and a very few cases are known in which the occlusion occurred even in the duodenum and there simulated a stenosis of the pylorus. With respect to occlusion of the large intestine, two cases are mentioned in which the stone remained fixed in the sulcus romanum. Further, one must here include all cases in which the stone was held back (as in the second case above cited) by the sphincter ani, producing the symptoms of intestinal occlusion.

Another question: In what manner do the stones reach the intestine, and what symptoms do they then produce? By following the course pointed out by nature, one readily understands that the small stones reach the intestine from the gall-bladder through the cystic duct, as do those from the gall-passages of the liver through the ductus choledochus; in their passage they then produce, by irritation of the mucous membrane of these channels, the dreaded gall-stone colics, and (when the ductus choledochus is occluded) icterus. But the matter is not so simple with the larger stones: these can reach the intestine only by very considerably expanding these gall-passages, or by some other route. The majority of authors regard the natural way as the only possible one, and they would conduct every gall-stone, even the largest, through the duct into the intestine; basing their theory, first of all, on the fact that, in autopsies, stones the size of a hazelnut have been found fixed in this channel, and (in the second place) the channel itself has been found open with an aperture an inch wide. But long ago individual observers expressed their doubts as to whether gall-stones of the size found in occlusions of the intestine could really have passed through the ordinary gall-passages, and the ever-growing number of cases of fistula of the gall-bladder, revealed by autopsy in such intestinal obstructions, led to the assumption that the larger stones might have reached the intestine through perforation, forming such fistulæ. An argument in favor of this view is the oft-observed occurrence of intestinal occlusion by gall-stones when there has been no previous gall-stone colic or icterus; yet, surely, the severity of

the symptoms must increase with the size of the stone, especially during its passage through the diverticulum Vateri. There are analogous invasions of other organs by gall-stones—for example, evacuation of gall-bladder through the abdominal skin, as a result of the formation of a fistula—which is by no means rare; further, gall-stones have at times penetrated even the stomach and urinary passages. Prompted by the frequent occurrence of fistula of the gall-bladder and intestine, authorities have gone even further and declared that the stones are generally expelled through ulcerations and perforations. Personally I should not care to go so far, certainly not to the extent of denying the credibility of many reports of evacuation by the natural route.

With regard now to the process itself: The stone must adhere firmly enough to the wall of the gall-bladder to produce ulceration or decubitus; then, before penetration can follow, there is usually formed by partial chronic peritonitis a union with the adjacent organs, especially with the intestine, into which the stone penetrates,—if no union be accomplished, general peritonitis supervenes through perforation into the abdominal cavity, with speedy death. On the other hand the fistula may cicatrize, and thus all sign of penetration be concealed ever after. Commonly it is the duodenum into which penetration occurs, the colon very seldom, for the reason that the colon is movable, hence junctions do not readily occur.

Inquiring now as to the symptoms caused by such a migration toward the intestine, it is found in a very large number of cases in which perforation has occurred that the process was accomplished almost without perceptible symptoms. The gall-stone produced an entirely chronic inflammation of the wall, to which was added an insidious, circumscribed chronic peritonitis, producing a sealing or soldering of the gall-bladder; then followed perforation, with very gradual expansion of the fistular opening before the stone finally penetrated the intestine, there, for the first time, to produce violent symptoms of occlusion; and so frequently is this the course that one very experienced investigator declares—and supports his contention by statistics—that in only a third of the cases observed is

the migration from the gall-bladder into the intestine attended by perceptible symptoms.

In a second series of intestinal occlusions are encountered the symptoms of circumscribed peritonitis with more chronic procedure—designated usually by the older authorities as hepatitis. More or less violent pains in the hepatic region, often radiating toward the shoulders, are commonly the conspicuous and frequently the sole evidence, though to this is occasionally added vomiting or other gastric disturbances that are calculated to mislead. The time which may elapse between these symptoms and the obstruction varies greatly. Occlusion has often occurred immediately after the migration, but cases are on record in which the entire tableau justified the definite assumption of such a perforation, though the intestinal occlusion supervened for the first time three months thereafter.

There are also cases of a third sort, in which the migration of the stone, proceeding in the most acute manner, presents the image of a highly severe internal constriction. Then are observed the symptoms which are manifested in a genuine case of intestinal occlusion: even the vomiting of *fæces* may occur, although, after death, autopsy reveals no local obstruction in the intestinal lumen—where, *per contra*, the gall-stone is found firmly adherent to the wall of the gall-bladder.—Hence those other cases explain themselves, in which a gall-stone twice produced the symptoms of very severe intestinal obstruction—the first time on passing into the intestine, where the occlusion was only (in a measure) simulated; the second, on its passage through the intestinal canal. The cause of this severe tableau during migration is a specially intense peritoneal irritation which leads to an attack upon the great nerves of the lower abdomen with their centres; and in fact this attack is probably made with a wider extension of the ulceration on the serosa.

Proceeding now to a consideration of the symptoms produced by the occlusion itself, I may be permitted first to introduce briefly a clinical case:

The patient was a woman fifty years old, who had suffered frequently from gall-stone colics; on this account she had repeatedly

visited Carlsbad and Marienbad, where several insignificant stones had been passed in the *fæces*. In the spring, a violent attack of colic again occurred, and the pain was mitigated by morphine. Subsequently there was no paroxysm until Christmas of the same year, when fainting-spells supervened, accompanied with frequent abdominal pains radiating from the liver. On the third day of January of the next year there supervened suddenly obstinate vomiting, which, after a few days, became feculent—this condition was attended with complete constipation and violent abdominal pains. Examination showed a quite considerable umbilical hernia, but this was repaired without trouble. Inasmuch as palpation of the lower abdomen showed no volvulus or other perceptible obstruction of the intestine, and as a radical intervention was emphatically refused, and all gentle measures of treatment proved futile, it was necessary to make the best of constant morphine injections, which kept the patient in a state of mild narcosis. On January 11th there was pronounced colic, but the very next day the pulse improved; there was some flatus, and on the 15th of January she passed the first stool. Two days later the stone, of the class first above described, was expelled. This was the course of the symptoms, briefly recited: Vomiting, which quickly became feculent; violent pains; complete suppression of stool; symptoms of collapse; meteorism; visible peristaltic movements; disturbances of urination. Such is the characteristic image of all intestinal obstructions, including those produced by gall-stones.

In the foregoing case the symptoms of collapse supervened relatively late, but as a rule they are not so severe in cases of intestinal occlusion as in other cases of intestinal obstruction which are in a degree more acute—as those arising from intussusception or from constriction due to internal hernia. If we consider this collapse, as well as that described during the migration of the stone, as shock through paralysis of the splanchnic nerve with engorgement of the vessels of the lower abdomen and consequent anæmia and depression of the blood-pressure in the remaining parts; if we regard the severity of these shock-symptoms as dependent on the suddenness of the constriction and the extent of the peritoneal and intestinal surfaces attacked; and if, further, it is assumed that collapse occurs, especially in occlusion of the small intestine, because this intestinal

segment is said to stand in an intimate relation with the large sympathetic ganglia of the lower abdomen,—even then there is no explanation why symptoms of collapse most commonly supervene in gall-stone constrictions and why they are yet almost never so severe as in many other intestinal obstructions. So far as the vomiting is concerned, it is found this is mentioned in most cases of obstruction from gall-stones. The initial vomiting must be regarded as a consequence of the so-called contraction shock, so that from the irritated peritoneum or intestinal segment a reflex-stimulus proceeds to the nerves which wait upon the muscles involved in the act of vomiting. The subsequent feculent vomiting is to be explained directly by the constipation; intestinal contractions cause the masses to seek an exit at the point where they find the least resistance, and that is in the stomach. In gall-stone constrictions (which are usually seated in the lower ileum) feculent vomiting commonly occurs, which corroborates the fact (disputed by some authorities) that the masses of feces are stercoaceous, even in the ileum. The other symptoms are very similar to those of other intestinal obstructions.

With respect to the final result of gall-stone occlusions: After causing the most violent symptoms of constriction, the stone passes through the intestine and is spontaneously evacuated through the rectum. Such cases are frequent in medical literature, yet in the majority the result is fatal. Death follows in the form of collapse through exhaustion or acute peritonitis with or without intestinal perforation.

In the second case herein noted, where the stone measured thirteen by nine centimeters in circumference, the symptoms were quite different.

The man, eighty-three years of age, had suffered for a half-year with constipation and a tormenting desire for passage, with very meagre, semi-liquid evacuations. At first the case was supposed to be enlarged prostate, but later a hard body was palpated in the rectal ampulla. This was a case of partial occlusion of the large intestine by a gall-stone which acted after the manner of a spherical valve—the more violently it was pressed down on the sphincter, the more firmly the latter closed, so that it was only by the stone

receding that a little thin-liquid stool could pass. After removal of the stone, all troubles were terminated. Frequently such a gall-stone is spontaneously expelled, not infrequently causing rupture of the sphincter.

To support the diagnosis "intestinal occlusion," the severe symptoms previously described are admitted by some authorities, but one encounters exactly the same symptoms in the so-called pseudo-incarceration, wherein autopsy shows absolutely no obstruction in the alimentary canal. In this category belong also the symptoms previously mentioned and manifested on the passing of the stones into the intestine; also, other cases in which, to a certain extent, these symptoms are produced by paralysis of a segment of the intestine; and individual cases of perforation-peritonitis proceeding from the vermiform appendix, which exhibit the characteristic image of intestinal occlusion. In such cases it is incumbent, in forming a differential diagnosis, to exclude the occasion of such a peritonitis or paralysis, and to find in the tableau of symptoms ground for suspecting an intestinal occlusion. In the first case I have cited, the previous colics, and still more the evacuated stones, suggested the thought of an occlusion due to gall-stones, but in many cases there is no previous colic or icterus; furthermore, gall-stone colics, while they may attest the presence of stone, give no basis for inference with respect to the size of the latter. Conditions are more favorable for diagnosis when a local peritonitis in the region of the gall-bladder has gone before. In individual cases the stones have even been palpated as a tumor in the gall-bladder, when also it was observed that the tumor disappeared with the subsidence of the symptoms of ileus. In such the diagnosis can usually be made with almost absolute certainty, especially when the patient is possessed of a very thin epigastrium. If none of these factors are present, an intestinal occlusion can only be regarded as probable, and it then becomes necessary to lay bare the cause. The first and most urgent duty is to examine all accessible hernial points, since hernias are the cause of many occlusions; if such can be excluded, it is then permissible to proceed and palpate the abdomen. Sometimes a volvulus may be felt, or other indications are obtained

for determining the mode of the obstruction. The second case I have narrated illustrates the necessity of examining the rectum. It is only when this complete and thorough examination yields barren results that one is warranted in accepting the suggestion of gall-stones.

Again, if diagnosis is difficult, an attempt to determine the seat of the occlusion is much more so, but it is well to remember that gall-stone occlusion is most apt to take place in the lower ileum. By giving attention to the pains and their location, inferences may sometimes be drawn; nevertheless the faculty of localizing pains in the intestine is little developed, and usually pains in every possible portion of the small intestine are either referred to the navel or described as thence radiating throughout the whole body; in the colon, on the other hand, pain is commonly referred to the exact place. Feculent vomiting points to the lower ileum or a deeper place, inasmuch as the masses are not yet feculent in the superposed parts. Meteorism, too, is also to be considered, for in occlusion of the upper segments of the intestine it is usually insignificant, being developed as a rule only in the epigastrium, while in occlusion of the deeper-seated parts one may expect pronounced meteorism in both the hypogastrium and mesogastrium. A sudden onset of pain or meteorism is apt to indicate occlusion in the small, while a more chronic course suggests occlusion in the large intestine. Useful as these diagnostic helps may prove under certain circumstances, only too often they leave the practitioner in the lurch, hence diagnosis of intestinal occlusion from gall-stones is ever most difficult. If the diagnosis is corroborated, or even rendered possible, by expulsion of the stone, it is left to the physician to exclude an intestinal stone by the well known cholesterin test.

Prognosis is to be regarded as at least dubious in every case, for even after happy removal of the stone the local peritonitis may become general; the intestinal wall may be so modified as to become gangrenous; perforation may occur subsequently; or finally, as a result of ulcerative processes at the site of occlusion, cicatricial stenosis may be developed.

Regarding therapy: Referring to the second

case mentioned, the stone, when recognized as lying in the rectum, is best extracted under chloroform narcosis, which relaxes the sphincter; and here it will often be found advisable to resort to preliminary incisions into the sphincter. The therapy of cases of the first kind cited corresponds closely to that employed in all intestinal occlusions, but laxatives should not long be persisted in; if they prove fruitless, resort should be had to massage, which, apart from its stimulating effect upon intestinal peristalsis, may perhaps move the obstacle itself.—If this measure is employed early, before the intestine is markedly modified, favorable results may decidedly be expected. Lavage, too, recommended by Kussmaul, often yields unexpected results, inasmuch as it removes gases and fecal masses above the impediment, and promotes movement of the stones themselves. Resort to the formation of an artificial anus or puncture of the air-inflated intestinal folds is to be considered, in so far as such measures ward off ominous symptoms when the stone is removed before it has produced necrosis from pressure. Next must be considered laparotomy, the most energetic and direct of all modes of intervention. After opening the abdominal cavity an attempt should be made to force the stone, situated in the lower ileum, into the colon; if this cannot be accomplished, the only thing left is to open the intestinal lumen, extract the stone, and sew up the intestine. Recent statistics give more favorable results than formerly; hence, when all other measures prove futile, laparotomy should be considered as promptly as possible. If this is refused or gives no promise, and other remedies have proved futile, the medical attendant can only act as in any other occlusion.

It is thus seen that various agents are at command for combating this grave disease, but laparotomy will, above all, be the best measure in the majority of instances.

Radeberg, Germany.

GOOD ADVICE.

There are three companions with whom you should keep on good terms—your wife, your stomach, and your conscience.—*Atlanta Medical and Surgical Journal*.

THE MEDICAL AGE.

A SEPTI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., AUGUST 25th, 1896.

Editorial.

HABITUAL CONSTIPATION.

This is the bane of the vast majority of American people, who as a class are rapid and injudicious feeders, given to sedentary habits, and the sworn enemies of systematic bodily exercise. Among women and the aged it has long been the *bête noire* of the physician, and no mean factor in the "pill" and "nosterium" traffic.

The aged whose constipation is the natural sequence of advancing senility give little trouble; but when this condition succeeds an existence misspent as regards regularity of general habits, the life of the medical attendant may be made a burden, owing to the constant demand, as each successive remedy is worn out, for something to relieve the intestinal torpor, which is found not nearly so bearable as prior to and during middle life.

The young and middle-aged women who suffer from habitual constipation are, almost without exception, reaping the consequences of their own folly, indiscretion, or stupidity. A large proportion of those who undergo the trials of the operating-room of the gynæcologist in order to secure relief from obscure pelvic disorders are merely the victims of torpid intestines and all the concomitants thereof. Perhaps the dilated cervix, curetted uterus, and much abused adnexa would have been far better treated if attention had been given to a crop of hæmorrhoids, an irritating fissure, a proctitis, or an overloaded and congested rectum. Women as a class habitually permit overloading of the lower intestines, thereby courting manifestations that, reflexly and otherwise, simulate a vari-

ety of pathological conditions. Dress is in a measure a cause of this: Rather than trouble to disarrange clothing, the average woman sedulously resists nature's call until "a more convenient season"—the hour of retiring, perhaps—and then finds she can no longer accomplish the act without extraneous aid. The ubiquitous corset is responsible for much. The closed undergarments that protect the nether extremities are often fastened about the waist beneath this bodice of steel, buckram, and rubber elastic, and consequently cannot be reached except by a practical undressing, and this of course is impossible when the stays have been contracted to their utmost limit by the aid of the maid or the principles of the compound pulley as illustrated by some fixed article of furniture. The wasp is the model of the nineteenth-century woman, the Venus dei Medici having long since been dethroned: flat chests and abdomens, skinny arms, gaunt necks, flabby calves, thin thighs, spider waists, and entire absence of glutei, are essential to the *fin de siècle* idea of beauty, and will continue just so long as the opposite sex condescends to lend encouragement by pretended admiration. If such transformations are the rule rather than the exception as regards the "outside of cup and platter," what must the *inside* be?

Again, the false modesty inculcated by so-called advanced civilization, which forbids certain normal functions to be even hinted at, yet gloats over the pruriency of French novels, fails to provide for the greatest necessities in an even half-adequate way; indeed, in this respect civilization is in the main far worse off than the blackamoors of Central African forests. In no American city is there any provision made for those who walk the streets or visit the shops. The parks, to be sure, have unsightly corrugated iron structures denominated urinals, and sometimes an open trench to receive fæcal matters, but these are invariably filthy in the extreme, and so illy cared for as to constitute veritable eyesores and foci for the dissemination of disease; they usually are provided for the sterner sex only, and apparently are designed for the sole use of tramps and others of the very lowest stratum of society. That the majority of both sexes would willingly pay for adequate and clean accommodation, goes

without saying, and the revenue derived therefrom would speedily and handsomely offset the first outlay and pay for the necessary attendance. Closets are much more necessary than swimming-baths.

The "toilet" accommodations in shops, too, are usually conspicuous for lack of cleanliness and proper sanitation; they often are quite unfit for males, let alone females. So, too, in the majority of private houses the closets are small, built without any ideas regarding either utility or comfort, and practically never meet the demands of the individual. Instead of there being three or four seats of various heights, one only is provided for all sexes and all ages: the seat is too high for any but a half-giant man, and it is utterly impossible for the average woman during defæcation to bring into play the muscles of the abdomen, which muscles are most essential to the normal act. The closet, which should be in the lightest, airiest, best ventilated, and in proportion to its use most commodious room in the dwelling, is commonly tucked away in a stifling corner on the upper floor, down in the cellar, or perhaps in a "hole under the stairway;" overpowering because of the heat in summer, it is chilling in winter; it is a prolific source of foul smells, a most excellent hiding-place for defective plumbing—in short, it is a place to be avoided except upon occasions of the most dire necessity. Little wonder, then, that constipation is rapidly becoming a "national vice."

Manifestly the relief must be largely a matter of education, certainly up-hill work at best. Obstinate or habitual constipation in women that is not the result of definite pathological changes can be relieved only when the fair sex will bestow their careful attention upon hygienic and sanitary measures, the same as they do upon personal toilet—indeed, the former should be made an intimate part of the latter. Their fathers, husbands and brothers largely escape the annoyances that accrue to household closets, by patronizing those at the office or shop; and modern office buildings and many hotels are models in this respect, though the height and arrangement of seats still leaves much to be desired. Women must first be provided with proper accommodations; children ditto; and both taught—if such a thing is conceivable

now that the age of miracles is past—that to secure and retain perfect health it is necessary to substitute rational judgment for whims, and to act in accordance therewith—that they must form regular habits and visit the closet at a stated hour at least once during each period of twenty-four hours, preferably in the morning immediately after breakfast—that the best way to overcome a vicious habit is by substituting a better—and that a resort to drugs should be had only when habit and the imbibition, on rising, of hot and cold water have altogether failed.

Next, when the medical attendant is consulted, comes the problem: What is the best general laxative or aperient? This is often a puzzle for the best. One suggests the Rhamnaceæ; another pins his faith on small and oft-repeated doses of *nux vomica* well diluted; a third finds *euonymin*, employed in the same way as the *nux*, most effective; others swear by *irisin*, *leptandrin*, *podophyllin*, or a combination of these or similar drugs; here one employs only pills of *aloin*, *strychnine*, and *belladonna*, while his neighbor prefers *colocynth* compound with *nux* and *hyoscyamus*, or perhaps a glycerin clyster or suppository—and so on. Each extols the remedy he employs most frequently, overlooking the fact that the majority prescribed for would possibly (and probably) have been as well or better off with a morning draught of hot water. All drugs doubtless are useful and necessary in their way, but not one can be relied upon to always accomplish what is expected of it. There is thus a great temptation to resort to poly-pharmacy, and recently we saw a prescription, given a woman suffering from constipation due to hæmorrhoids, that called for *cascara sagrada*, *Socotrine aloes*, *leptandrin*, extract *colocynth* compound, extract *nux vomica*, *podophyllin*, extract *hyoscyamus*, dried sulphate of iron, Castile soap, and *capsicum*. The combination relieved the patient for just four days; then, having lost its virtue, it had to be discarded.

Some patients are relieved best by remedies that promote secretion, but only for a time; vegetable laxatives alternated with a course of salines also are effective; but the day comes, alas! only too soon, especially with aged patients, when all fail, and relief

can only be had through enemata, which in turn are forced to yield place for the drastics—the “three iles,” for instance—croton, castor, and turpentine.

Thus the subject of Habitual Constipation offers a fruitful theme for medical men, and THE MEDICAL AGE will be most thankful to receive any enlightenment thereon, and will freely accord the use of its columns for this purpose.

MEDICINE IN FRANCE.

It may be a matter of interest to those accustomed to believe that all medical science emanates from abroad, to learn something of the status of the medical profession in the countries most regarded as the treasury of knowledge.

Germany was recently and most aptly described as “a country filled with doctors possessed of a wonderful amount of learning but with entire lack of common sense,” and the results that have accrued to medicine by blindly following “Deutsche” methods certainly bear out the criticism. The same, to a considerable extent, is true as regards France, minus perhaps a large percentage of the first part of the proposition, for it is generally admitted that at the present day quackery is nowhere more rampant than in the ancient kingdom of Gaul (in the larger cities at least). Indeed, it is openly acknowledged that in Paris quackery has come to be more profitable than the legitimate practice of medicine with the larger number of practitioners. Recently a much advertised doctor, whose rooms are crowded from morning to night with patients, was threatened with prosecution for practicing the profession of medicine without a license. Being thus brought to bay, he displayed to the prefect the necessary document and implored that his possession thereof be kept a secret, explaining that if his clients had an inkling that he was a regular practitioner his gains would be diminished.

M. Paul de Cassagnac makes even a more remarkable disclosure and vouches for its authenticity. He asserts that there are institutions in Paris in which patients are received for the purpose of undergoing sham operations. They are induced to believe

they are suffering from some organic complaint which can only be relieved by the knife, and thus betake themselves to this establishment, which has been especially recommended to them. On the day appointed for the so-called operation they are put under an anæsthetic and a few superficial cuts and scratches inflicted. In certain medical circles there is a regular name for the man who practices these tricks on the victims of imaginary ailments.

All this has a horrible sound to it, yet the fact remains that just such methods are to-day being practiced in the United States, not alone in the larger cities, but by itinerants who are permitted to go from place to place unchecked, and whose objects are merely to rob the credulous public to their own financial gain.

The French laws regarding the practice of medicine are very strict, nevertheless they fail to eliminate quackery entirely. The same is true also of Great Britain.

With this knowledge before us, the methods at present being adopted in the United States, or rather by individual commonwealths of the Union, looking to the suppression of charlatanism, appear as futile as an attempt to empty Lake Superior with a lady's thimble.

TUBERCULAR FOODS.

In Great Britain a “Royal Commission” has been appointed “to inquire into and report what administrative procedures are available and most desirable for controlling the danger to man through the use as food of flesh and milk of tuberculous animals, and what are the considerations which should govern the actions of responsible authorities in condemning for the purpose of food-supplies animals' carcasses or meat exhibiting any stage of tuberculosis.”

The Commissioners are Sir Herbert Maxwell, Doctor Richard Thorne, C.B., Messrs. George Thomas Brown, C. B., Harcourt Everard Clare, Shirley Murphy, John Speir, and Thomas C. Trench.

It is to be hoped they will be able to furnish more satisfactory evidence than has hitherto accrued to investigations of like character.

THE ONTARIO INSANE ASYLUM.

We recently had the privilege of partaking of the hospitality of Doctor Daniel Clark, Superintendent, and, under his guidance, of giving thorough inspection to the Provincial Insane Asylum at Toronto. This, as is well known, is a model asylum in its way, and remarkable not alone for the superior comforts afforded patients—who are denied none of the ordinary utensils of civilization, even to knives and forks,—but also from the fact that absolutely no forced restraint is employed, no strait-jackets, muffles, wristlets or handcuffs being permitted in this institution. Doctor Clark is the pioneer in this method of treating the insane, and its success is evidenced in the records of the asylum, which show, annually, a cured and discharged ratio of forty per cent.

Though we arrived unexpectedly and at an hour when visitors are not admitted, Doctor Clark at once threw open the wards to inspection, even those which from the character of the patients therein are not usually shown. Thus everything was seen practically at its worst, but even then it was much better than the best in most institutions of this character.

Doctor Clark is one of the few superintendents who are not content with routine procedures, and is ever seeking the betterment of those under his charge.

WORTHY OF ATTENTION.

Recently, in the *Pacific Medical Journal*, Doctor Potter gave utterance to a "wail" which certainly is worthy of attention. Therein he pointed out that the American physician who visits Germany gets no credit for his cis-Atlantic degree. Even after securing an orthodox German degree he is not permitted to practice, since he must first pass a State examination, and, second, become a German citizen—which means three years' service as a soldier. Thus it is practically impossible for a foreigner to practice medicine in the German Empire. A similar condition exists in France, where even pharmacists are not permitted to sell drugs to or fill the prescriptions of American physicians.

It certainly is neither right or just that the privilege of practicing in the United States

should be open to citizens of countries which do not reciprocate, and especially to German and French charlatans who cannot practice at home. As Doctor Potter suggests, "the spirit of 'jingoism' which is now so interestingly active throughout the country might find a legitimate field to expend itself" in a tariff to protect American physicians.

EDITORIAL NOTES.

Golden Anniversary of the Scientific American.—

In commemoration of the fiftieth anniversary of the weekly issue of the *Scientific American*, Messrs. Munn & Co. have issued a memorial number which is a very complete *résumé* of progress and invention during the last half-century in the matter of Trans-Atlantic Steamships, Naval and Coast Defense, Railroads and Bridges, Sewing Machines, Physics and Chemistry, Electrical Engineering, Progress in Printing, Locomotives, Iron and Steel, Phonographs, Photography, Telegraph, Telephones, Telescopes, Bicycles, and particularly the "History of the *Scientific American*." There are a large number of other articles of great interest and special merit, including a prize essay dealing with the Progress of Invention during a Half-century.

Probably never before has so much valuable historical information been published in so condensed and popular a manner; indeed, the seventy-two pages of this issue of the *Scientific American* will be appreciated when it is known it equals a book of 442 ordinary pages, and is an epitome of information that will be a valuable addition to any library. The beautifully illustrated and especially designed cover is a particularly appropriate adornment.

The Bertillon System.—

This system of anthropological measurements has been adopted at the Sing Sing Prison.

Sir William MacCormac.—

This well known surgeon has been elected President of the Royal College of England.

Items and News.

Evolution of the Thermometer.—

The origin of the thermometer is lost in the night of time: the father of it is not known. Was it Fludd, 1637? Was it Galileo, 1597? Was it Lanctovius or Father Paul of Cracovi? Lanctovius claims the paternity, and Borelli and Malpighi allow it to him. It was an air thermometer of no real value. Galileo constructed the first spirit thermometer in 1616 or 1617, and Boyle introduced it into England. This thermometer was not a real vacuum. Hook in 1665 took the freezing of water as zero, and Boyle suggested the use of distilled water. In 1701 Newton prepared a thermometer with linseed oil; he took melting snow as zero, and the temperature of a living animal as 12°. The same year Amontons used mercury with air. Now appeared Fahrenheit with the first proper mercurial. Reaumur's came out in 1730, and that of Celsius in 1742. The zero of Celsius was at first at the real 100°, his 100° marking melting ice. Linnæus suggested the reversal of this order. Mauchenbrock in 1747 invented the first pyrometer, which was improved in 1754 by Desaguliers and in 1782 by Wedgewood.—*Science Progress.*

The Microbe Pathology.—

It is a sad time for medical art and for the sick when physicians turn from the study of individual patients to the investigation of disease as an abstract condition, forgetting that every disease is profoundly modified in its type and issue by the peculiarities of the persons in whom it occurs. Of the many evils begotten of this error, a very serious one is that it tends to impair a physician's sense of responsibility, and therefore lessen that anxious vigilance which he should never suspend while the issues of life and death are in his hands. At the same time the patients of a physician who appears to have little faith in his own powers soon tend to lose their faith in him. It is through faith alone that innumerable cures are wrought, cures that have even been called miraculous.—*Philadelphia Ledger.*

Medical Magic.—

In a French journal appears an account of a trial in which the plaintiff was the wife of a porter, and the defendant a non-licensed healer who practiced her art in a somewhat peculiar fashion. The plaintiff stated she and her husband had gone to consult this woman about a tumor from which the man

was suffering. The woman examined the arm, made the sign of the cross over it, and pronounced some "Latin words," that sounded like: "*Roupioupiou-tralala — badabournorum.*" Afterward the woman pierced the tumor with a needle, and during the operation made the patient hold a cooked leek in the right hand and a lighted candle in the left; also directed that the tumor be anointed every morning and the arm washed with rabbit's blood.—*New York Medical Journal.*

"Examination Fever" and Stage Fright.—

Fluid extract of gelsemium in the dose of ten minims three times daily is recommended as a means of toning up those about to undergo the ordeal of examinations. An English specialist, who was much resorted to by members of the dramatic and musical professions, was very successful in the treatment of stage fright with laudanum; five to seven drops, he found, would give confidence to the most excitable actress and *prima donna* on "first nights." John Hunter was accustomed to nerve himself for the lecture-room in the same way; and it was probably this, as well as his experience of the drug in the case of sufferers from worse afflictions, that led him often to exclaim: "Thank God for opium!"—*The Practitioner.*

Somewhat Startling.—

A clergyman who was stone deaf, with a view to introducing more hymn books into the church gave the clerk a notice to read after the sermon. The clerk had also a notice to give out with reference to the baptism of infants, and at the close of the sermon arose and announced: "All those who have children whom they wish to have baptized, please send their names at once to the clerk." The clergyman assumed this must be the hymn-book notice, and accordingly arose and said: "And I would say, for the benefit of those who haven't any, that they may be obtained at the vestry any day from three to four o'clock—the ordinary little ones at one shilling each, and special ones with red backs at one shilling and fourpence."

Odors in Disease.—

Most diseases have characteristic odors, and by the exercise of the sense of smell these could be utilized in differential diagnosis. For example, favus has a mousy odor; rheumatism a copious, sour-smelling, acid sweat; pyæmia gives a sweet, nauseating breath; the rank, unbearable odor of pus from the middle ear tells the tale of the decay of ossous tissue; in scurvy the odor is putrid; in chronic

peritonitis musky; in syphilis sweet; in scrofula like stale beer; in intermittent fever like fresh-baked brown bread; in fevers ammoniacal; in hysteria like violets or pineapple; measles, diphtheria, typhoid fever, epilepsy, phthisis, etc., have characteristic odors.—DOCTOR McCASSY.

Ignorance and Quackery.—

Some little time ago Koch placed himself under the care of Father Kneipp, of cold-water fame. We are told there is honor among thieves, and suppose there is a sort of free-masonry between charlatans which induced Koch to ask medical assistance of the pastor.

The latter's treatment consists of "cold-water baths, bandages, and walks upon wet grass with bare feet," prescribed indiscriminately for every ill to which human flesh is subject.

We wonder how long an American patient would survive this sort of thing? It is a pregnant commentary upon the German's deplorable ignorance of drugs.—*Medical Brief*.

Examination of Urine.—

I know from personal experience that fully ninety per cent. of the physicians in general practice with whom I am acquainted either do not know how to examine urine or do not do so. I have been told by men old in the profession that they never looked through a microscope. For these there is the excuse of lack of education in the use of the microscope, but there is not the shadow of an excuse for the young man who once told me that he had graduated six years before and found it unnecessary to use his microscope in general practice.—M. H. RUSSELL, in *University Medical Magazine*.

Experimental Polydactylism.—

Extra toes may be produced on a salamander by placing the animal in a vessel half-filled with water. In its attempts to keep the head above water, the toes are worn away. If aquatic plants are placed in the globe upon which the feet can rest, so that effort is no longer required, and sufficient food be given, the toes regenerate with great rapidity and degree. In one instance where there were previously but four toes on the front feet, six toes developed, and one hind toe became double.—DOCTOR GIARD, before the Société de Biologie (Paris).

French Foods.—

Every one in Paris knows to-day that spring chickens are manufactured in quantities to order, just the same as artificial snails. Our

lobsters and crabs are genuine, but who can ever tell whether they are fresh, dressed as they are in sour wine *mayonnaise*? One must have famously good viscera to swallow the latter. French cheese has very advanced—or, let us say, strong—opinions. Gentle reader, did you ever dream the tender "Brie" is now made of petroleum jelly, *alias* vaselin?—*Cincinnati Lancet-Clinic*.

The Surinam Toads.—

The *Pipa americana*, at the Zoölogical Society's Gardens (London), have recommenced breeding this year, and two of the females may now be seen with their backs covered with cells, in each of which an egg is located. The hitherto unexplained mode in which the eggs are transferred into their cells has been discovered, and the secret was divulged at the last scientific meeting of the Philosophical Society.—*Nature*.

How Oysters Grow.—

Shucorn says that the oyster, at the commencement of its career, is so small that two million would only occupy a cubic inch. In six months each separate oyster is large enough to cover half a dollar, and in twelve months a silver dollar. It bears its age upon its back, and it is as easy to tell the age of an oyster by looking at its shell as it is that of horses by looking at their teeth.—*Eclectic Magazine*.

Novel Remedy for Post-partum Hæmorrhage.

I was called to a severe case which had been attended by an up-to-date nineteenth-century midwife. The treatment she had adopted prior to my arrival was a *spoonful of the patient's blood* (which had escaped per vaginam) in a glass of water every half-hour. This midwife does an immense practice—chiefly "without the doctor."—JOSEPH BEESTON, in *Australasian Medical Gazette*.

The Value of Therapeutics.—

If the study of pathology means the neglect of therapeutics, so much the worse for pathology, and so much the worse for schools which make pathology their leading feature. The man whose interest in his patient ends when he finds out exactly what ails him, ought to be in some other line of work than in the practice of medicine.—*Medical Sentinel*.

Obstetricians and Gynæcologists.—

The ninth annual meeting of the American Association of Obstetricians and Gynæcologists will be held at Hotel Jefferson, Richmond, Virginia, September 22d to 24th.

Book Reviews.

SYSTEM OF SURGERY. Edited by Frederick S. Dennis, M.D., and John S. Billings, M.D. Volume IV. Cloth; 8vo; pp. 970. Price, \$6.00. Lea Brothers & Co., New York and Philadelphia.

This, the final volume of this magnificent work, embodies a series of essays on: Tumors; Hernias; Surgery of the Alimentary Canal, of the Liver and Biliary Passages, of the Uterus, of the Ovaries and Tubes, of the Thyroid, and of the Female Breast; Surgical Gynecology; Appendicitis; Symphysiotomy; Surgical Peculiarities of the Negro; Use of the Roentgen Rays in Surgery. The authors are Doctors Robert Abbe, William T. Bull, Farrar Cobb, Henry Coe, William C. Coley, E. K. Dunham, E. M. Foote, Frank Hartley, Joseph T. Johnson, W. W. Keen, William T. Lusk, Rudolph Matas, Charles McBurney, L. S. Pilcher, W. M. Polk, M. H. Richardson, and R. F. Weir, besides the editors.

This, like preceding volumes, is very comprehensive, and voices especially the opinions of the individual contributors. The value of the work, moreover, is greatly enhanced by the fine illustrations, the majority having been prepared expressly for this work. The introduction of a chapter on the use of the X-Rays is a feature hitherto unknown, and alone will render the volume a necessity to practitioners of medicine.

THE SPORTING DICTIONARY. By George J. Manson. Paper; square 16mo; pp. 130. Price, 25 cents. The Humboldt Publishing Co., New York.

This is one of the "Twentieth Century" Library published by the Humboldt Publishing Co. at \$4.00 per year. It is the first attempt to make a sporting dictionary or vocabulary of the professional and technical terms used in all popular games and sports, and all games of cards. The definitions are concise and authoritative, yet it would indeed be remarkable if there were no omissions in a work of such extreme difficulty. The publishers announce their intention to enlarge the volume from time to time, adding new terms as they come into use, and the author expresses a desire to receive from readers any suggestions for subsequent editions.

This little book will be of great value to lovers of sport, both in the United States and Great Britain, and in both countries a large and intelligent portion of the people take an active interest in recreation of every kind.

BORDERLAND STUDIES. By George M. Gould, A.M., M.D. Cloth; 12mo; pp. 380. Price, \$2.00. P. Blakiston, Son & Co., Philadelphia.

This volume embodies twenty-four essays by Doctor Gould that have been published at various times in *The Forum*, *Medical News*, *Monist*, *Open Court*, and by the Council of the American Academy of Medicine. Among the subjects treated are:

"Vivisection;" "Medicine as a Science;" "Hospitalism;" "Quackery;" "Untruthfulness of the Lay Press in Medical Matters;" "Disorganization of Medical Science;" "Medical Aspects of Life Insurance;" "The Apotheosis of Hysteria and Whimsicality;" "The Power of Will in Disease;" "Human Life Under Denied Sensation;" "Immortality," etc. The ability and researches of the author commend this volume to all medical men. Indeed, although the work is not strictly medical, and much of it may be perused with profit by laymen, it nevertheless deals with essentials pertinent to every practitioner.

THE VANISHED EMPEROR. By Percy Andrae. Cloth; 12mo; pp. 365. Rand, McNally & Co., Chicago and New York.

The very fact this volume is by the author of "Stanhope of Chester" is evidence sufficient that it is not of ordinary character. Herein eminent living personages are introduced as characters, and, though disguised, they are easily recognized. Emperor Willibald is manifestly the "war lord" of Germany; the Duke of Cumberland, the Duke of Cumberland; and Prince Ottomarck can be no one but Prince Otto von Bismarck; Franconia, of course, is France, and Brandenburg Prussia. The story purports to be no more than a romance built up on a mosaic basis of fact and fiction; and those who are acquainted with the inner history of the present dynastic relationships of Germany, which are the outgrowth of historical events of the last forty years, will recognize a certain substratum of actuality that is at least a good imitation of truth.

MATERIA MEDICA, PHARMACOLOGY, AND THERAPEUTICS. By W. Hale White, M.D., F.R.C.P. Cloth; 12mo; pp. 687. Price, \$2.75. P. Blakiston, Son & Co., Philadelphia.

The fact this volume has reached a third American edition is sufficient evidence of its value. It is a most excellent and comprehensive work, and so condensed as to bring into small compass the facts essential to the student and medical practitioner. It is thus among the very best of reference textbooks, equally available for the student or the experienced physician, and its conciseness is certainly very far from being the least of its merits. Another notable feature is that the volume abounds in italicized notes calling attention to errors or misunderstandings which experience has shown to be likely to arise in a work of this kind; these notes constitute very important danger signals.

SEXUAL ILLS AND DISEASES. Flexible morocco; 16mo; pp. 160. Price, \$1.00. Boericke & Tafel, Philadelphia.

This manual is intended to supply plain, practical, honest advice for sufferers from sexual and kindred ills. It is, of course, necessarily limited to elementary points, as anything more elaborate

would be out of place in a work of this nature. Further, the book will be an effective weapon in the hands of the physician whereby to combat the methods of charlatanism. The false ideas regarding "lost manhood," etc., are thoroughly punctured. The volume especially emphasizes the fact that when it is necessary to consult a medical man the proper one is the old and tried family physician.

A TREATISE ON APPENDICITIS. By John B. Deaver, M.D. Cloth; 8vo; pp. 168. Price, \$3.50. P. Blakiston, Son & Co., Philadelphia.

This work has been prompted by the belief that the importance of appendicitis entitles that disease to a more thorough and exhaustive study than is usually accorded it. No inflammatory affection of the abdominal cavity is capable of such varied symptoms and of so many serious complications, all of which demand the most thorough knowledge for their proper treatment. The author presents such a systematic study of the disease that not only may the usual symptoms be traced from their inception to their termination, but the various anomalous conditions so frequently met with may also be readily recognized. We cordially commend the book to every abdominal operator, and cannot speak too highly of the illustrations, which include thirty-two full-page chromo-lithograph plates.

ANATOMY OF THE HUMAN HEAD AND NECK. By Doctor Schmidt. Revised and edited by William S. Ferneaux. Boards; 4to; pp. 16. Price, \$1.00. Thomas Whittaker, New York.

This series of plates represents the chief organs of the head and neck in their anatomical relations, by means of a series of folding leaves. While intended primarily for the non-scientific, it serves as a compact and handy means of reference for students and practitioners. Plate 1 and its folds deal with the superficial muscles of the nose, outer and middle ear, and the eye; plate 2, with the general muscles of the head; plate 3, with blood-vessels and nerves of the head; plate 4, with buccal, nasal, pharyngeal, and laryngeal cavities, and superficial aspects of the brain; plate 5, with the interior brain.

THE IRON PIRATE. By Max Pemberton. Paper; 12mo; pp. 226. Price, 25 cents. Rand, McNally & Co., Chicago.

The fact this bit of fiction is by the author of "Sea Wolves" is sufficient to commend it to a large number of readers. Aside from an interesting, even thrilling plot, the author seeks to show that piracy even at this last end of the nineteenth century is not altogether an impossibility, in spite of the fact it must wage war with the telegraph, with steam, and with the navies of nations. The work is something after the order of Jules Verne, and has a sprinkling of science and mechanics as

well as romance, with a great deal less of the improbability—not to say impossibility—that pertains to the writings of the French author.

CHECKED THROUGH. By Richard Henry Savage. Paper; 12mo; pp. 329. Price, 50 cents. Rand, McNally & Co., Chicago.

This is one of the Rialto Series issued by Rand, McNally & Co., and presents a very thrilling plot in which are mixed up three beautiful women and a firm of three lawyers, two of whom of course are in love with one woman; the youngest secures her by means of a secret marriage, only to compass her death in order to marry a rich Tammany widow, thereby to further his political operations. There is a good deal of "go" to the work, though some parts of it are somewhat coarse. It is very interesting, however, and holds the reader enthralled almost to the final page.

WHITTAKER'S ANATOMICAL MODEL. By Doctor Schmidt. Edited by William S. Ferneaux. Boards; 4to; pp. 16. Price, 75 cents. Thomas Whittaker, New York.

This is a pictorial representation of the human frame and its organs, apparently intended for use in schools; nevertheless it will be found of practical utility to every medical man. Plate 1 represents the heart and blood-vessels; plate 2 the skeleton; plate 3 the superficial muscles; plate 4 the deeper muscles of the eye; plate 5 the viscera, etc. All are drawn to scale, consequently their applicability is assured. There are, further, some sixteen pages of text explanatory of the plates.

MULTUM IN PARVO REFERENCE AND DOSE BOOK. By C. Henri Leonard, M.A., M.D. Flexible leather; pp. 145. Price, 75 cents. Illustrated Medical Journal Company, Detroit.

The new edition is printed on thin paper and bound with round corners so as to make it especially light and handy for the pocket. It is very complete and contains a vast amount of general information.

DISEASES OF CHILDREN. By Marcus P. Hatfield, A.M., M.D. Cloth; 16mo; pp. 261. Price, 80 cents. P. Blakiston, Son & Co., Philadelphia.

The title of this volume, which is one of Blakiston's Quiz Compend Series, sufficiently indicates its scope. It is prepared from current text-books devoted to this subject.

A GRAY EYE OR SO. By Frankfort Moore. Paper; 12mo; pp. 314. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 236 of the Globe Library, and is a most interesting and thrilling bit of fiction that must be perused to be appreciated.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

The August issue opens with an article on "The Grouse," by Alexander I. Shand; "Hadj Ano" is by R. S. S. Baden-Powell; "Baseball in England," by Richard Morton; "Night Shooting in India," by T. S. St. Clair; "On Rowing Camps," by H. Coffey; "Wild Stag Hunting," by Viscount Ebrington; "Shark Fishing," by H. R. Francis; "Grace in Cycling, and How to Attain it," by W. Hay Fea; "The Revival of Croquet," by Mrs. Churchill; "Cricket," by R. H. Lyttelton; "A Day's Sport in Morocco," by C. F. Cromie. The articles are illustrated by A. Thorburn, R. S. S. Baden-Powell, S. Berkeley, E. Caldwell, H. M. Brock, Lucien Davis, N. J. Gibb, and John Beer. There are the usual "Notes by 'Rapier.'"

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

Contents for August 15th: "More Facts for Consideration;" "Editorial Notes and Comments;" "Recent Changes in Formulæ and Data Used in Determining the Strength of Materials;" "Action of Heat on Cement;" "Legal Notes;" "Græco-Phœnician Architecture in Cyprus: With Special Reference to the Origin and Development of the Ionic Volute"—II; "In Streets and Papers;" "Obituary;" "Building Associations of St. Louis;" "Glass Painting and Architecture;" "Societies;" "Effort to Secure Arbitration in Boston;" "New Use for Old Horse-cars;" "Personal;" "Industrial Progress."

AMERICAN ANTIQUARIAN. Price, 25 cents; \$4.00 per year. Edited and published by Stephen D. Peet, Good Hope, Illinois.

The fourth number of Volume XVIII of this bi-monthly is before us with an exceedingly interesting table of contents which includes "Notes on Oceanica," by John Fraser; "Some Northwest Burial Customs," by J. Wickersham; "Prehistoric Remains at St. Paul, Minnesota," by T. H. Lewis; "The Psychologic Development of Medicine," by J. H. McCormick; "Early American Explorations Among the Pueblos," by S. D. Peet; "Iroquoian Philology," by Horatio Hale; and the usual editorial and other departments.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. The Ontario Publishing Co., Toronto.

The issue for August is a most beautiful "Midsummer Fiction Number," the chief contributors being W. E. Hunt, Isabel A. Steacy, Thomas Swift, Constance R. Boulton, Lee Wyndham, Fidele H. Holland, Ian Maclaren, and F. L. Pollock. "The Dry for Free Silver," by John A. Cooper, is a consideration from a Canadian standpoint of the important monetary problem with which the people of the United States are now wrestling. The poetry is by Francis Sherman, Jean Blewett, R. Herrick, and C. G. D. Roberts.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Co., Boston.

The August number contains an illustrated article on the "Indianapolis Industrial Training

School," which pays especial attention to the culinary art. "Summer Mushrooms" is by Annie P. Doughty; "Furnishings for Boston School Kitchens," by Miss A. G. E. Hope; "Gossip from Gotham," by Dinah Sturgis; "The Children's Table," by Mrs. S. A. Dorn; "How to Save Strength and Time," by Angie T. Curtis; "Temperament or Training?" by Mary L. Clark; "A Short Course in Cookery" (v), by Anna Barrows. There are the usual departments.

UNITED SERVICE. Price, 25 cents; \$2.00 per annum. L. R. Hammersly & Co., Philadelphia.

The August issue is No. 2 of Volume XVI. In it appears "An Answer to 'The First Six Weeks of McClellan's Peninsula Campaign,'" by Fred A. Churchill; "What Our Cavalry in Mexico Did, and Did Not Do, and Other Things" (concluded), by Lieutenant Colonel William B. Lane, U. S. A.; "An Incident in the History of the Dying Confederacy," by Ben C. Truman; "The German Army" (concluded), by J. J. O'Connell, U. S. A.; "The Queen of the Desert," anonymous. There is the usual interesting Service Salad.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

The August number contains: "Note on the Discovery of a Sessile Convallaria" (II), by R. Ruedemann; "Preglacial Erosion Cycles in Northwestern Illinois," by O. H. Hershey; "Note on the Formation of Gold Ore," by K. von Kraatz; "Notes on the Quaternary Geology of the Mattawa and Ottawa Valleys," by F. B. Taylor; "The Origin of the Wind Gap," by F. B. Wright; and the usual departments.

AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

The August issue contains an illustrated article by E. D. Cope entitled "The Oldest Civilized Men." J. C. Hemmeyer writes of "On the Rôle of Acid in the Digestion of Certain Rhizopods;" E. F. Smith, of "The Bacterial Diseases of Plants;" F. C. Kenyon, of "The Meaning and Structure of the So-called 'Mushroom Bodies' of the Hexapod Brain." There are the usual departments.

THE AMERICAN ANTHROPOLOGIST. Price, 20 cents. \$2.00 per annum. Published by the Anthropological Society of Washington.

The issue of August 10th contains a most interesting paper by J. Walter Fewkes on "Two Ruins Recently Discovered in the Red Rock Country of Arizona." There are the usual Book Reviews, Notes and News, and Bibliographical Department.

THE TWENTIETH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF PENNSYLVANIA. Cloth; 8vo; pp. 721. Clarence M. Bush, Harrisburg.

This is the official report of the State Board of Health for the year 1894, and is a very valuable work from a comparative and meteorological standpoint.

Therapeutic Brevities.

Dioscorea Villosa.—This remedy has long been in use among Eclectics. It is said to be a specific for bilious colic, given in five-drop doses of the fluid extract every five minutes for one hour; if there is no relief, it is needless to try it further. Anodynes and local applications should be used in conjunction, but not carried too far.

It is also a remedy of value in nausea and vomiting, with gastro-intestinal irritation, and in flatulent distention of the stomach.

In some cases of typhoid fever, when there is tenderness on pressure and tympanites; in the early stage of puerperal peritonitis, or even in after-pains; in diarrhea and in dysentery of the child and of the adult; and in some cases of cholera infantum, it is of value—there may or may not be in any of these cases more or less fever, when the addition of gelsemium usually relieves.

Dioscorea is recommended as a superior remedy in the passage of gall-stones. It relieves the pain, reduces congestion, and lessens the inflammation. It is also recommended in so-called "hepatic indigestion" and in cirrhosis of the liver. In the latter lesion it is said to delay the progress of the disease and to be fully as efficient as the mercurials. In hepatic carcinoma, it is said that the administration of *dioscorea* adds much to the anodyne effect of morphine, hence it is a good remedy. It is an excellent remedy in chronic malarial troubles, and may be used alone or in alternation or conjunction with arsenic, quinine, nux, or any other indicated remedy. Also, it is said to exert some pain-relieving influence in facial neuralgia, gastralgia, pain in uterus, painful and spasmodic action of bladder and rectum, and sciatica. In rectal diseases in which *dioscorea* is most efficient the discharge from the bowel is thin and yellow, preceded by violent, twisting, colicky pains, and followed by great exhaustion.—*Eclectic Medical Journal*.

Abortive Treatment of Quinsy.—Since De Havilland Hall brought before the Clinical Society of London in 1883 the local application of cocaine in acute parenchymatous tonsillitis, I have had repeated opportunities of proving the value of this remedy. A strong solution freely applied to the affected tonsil early after the onset of an attack of true quinsy (the form which commences on one side of the fauces—peritonsillar inflammation tending to suppuration) will, according to my experience, in most cases cut short the attack, and suppuration will not occur. A

man forty years of age had suffered from repeated attacks of quinsy, with the formation of abscesses sometimes on one side of the throat and sometimes on the two sides in succession. He was suddenly taken ill in the night with severe pain in the throat and shivering. I saw him about fifteen hours later. He looked ill: temperature 103°; pulse 116; tongue furred; fauces nearly blocked by the left tonsil, which was much swollen and pushed inward by inflammatory swelling around it—some dirty yellow deposit on its surface. After a preliminary brushing with soda-water a grain of cocaine was dissolved in half a drachm of water, and most of this used in free brushing of the surface of the tonsil and surrounding parts. Some vomiting was caused—this is rather advantageous, as it prevents undue absorption of the cocaine. Next day the swelling had lessened and swallowing was easy; on the following day he was convalescent. Judging by his former experience, a week or more of severe dysphagia and fever was anticipated, unrelieved until pus had been discharged. The treatment appears to be useless in ordinary tonsillitis.—DOCTOR FOX, in *The Lancet*.

Resuscitation of the Drowned.—The bathing season inevitably demands a certain percentage of victims, but much loss of life could be prevented if the people at large were only better informed as to the various methods applicable for restoring animation. The following method of resuscitation, communicated by Doctor W. H. Miller, deserves attention.

A boy was taken from the water, to all appearances dead, and all efforts at reviving had proved futile; when Doctor Miller appeared, he had lain in a cold room for an hour, lifeless.

The Doctor seized him by the legs and suspended him head down, and at the same time introduced his fingers into his mouth, pressing the tongue forwards and downwards, tickling the throat with the finger and removing water, mucus, etc., from entrance to windpipe. He had him suspended for eight seconds; then, quickly placing him upon his back, he pressed the air out of the lungs, by pressure on the breast-bone for two seconds; again had him quickly suspended for seven seconds; and so continued alternately, shortening the period of suspension each time one to four seconds. At the fourth suspension he felt a slight pressure of the jaw on the finger; upon the next a pressure was felt and the faintest whisper heard; at the next a firm pressure and a loud cry.

The treatment was completed by the ad-

ministration of stimulants, rubbing, applications of hot bricks and blankets, and finally putting to bed to sleep.—*Medical Standard*.

Varicose Ulcers.—Wash with warm boiled water or a feeble solution of carbolic acid; dry with sterilized cotton, and paint with tincture aloes. If the ulcer is superficial it is sufficient to paint once—if it is deep, twice or thrice,—but each application must be dried before applying another, and more than three should never be made. The application sometimes causes pain, which, however, disappears rapidly. After the application is made, it should be dried and covered with an impermeable tissue of the same dimensions as the ulcer, and then covered with cotton and a bandage. If inflammation of the edges of the ulcer and purulent discharge occur, take off the dressing, clean up the wound, and renew the manipulations described above. The dressing must be changed every four days, applying anew the tincture if the crust seems too thin and if the membrana granulosa is forming. If on the contrary the first application has no effect, a new application of aloes is not made. This treatment succeeds more certainly in cases where the patient is resting and retaining the leg in a horizontal position, but it gives a good result even with patients who pursue their usual occupations and are obliged to stand a great deal.—COFFIN, in *Journal of Cutaneous and Syphilitic Diseases*.

The Question of Potassium Iodide.—When one reads with care all the statements made regarding mercurial injections, he sees that all those who use them no longer employ potassium iodide. Hence arise the following questions: May the iodide be administered at the same time that injections of insoluble mercurials are used? Is its employment in these conditions of benefit, or simply useless, or dangerous? Ophthalmologists maintain that for certain ocular affections the simultaneous administration of the iodide with mercury may be dangerous.

If it is true that the iodide, far from favoring elimination of mercury, retards it, the drug should not be given when mercurial injections are accompanied by symptoms of intoxication. But it is proper to inquire if the non-success attending certain cases with mercurial injections alone, and the accidents pointed out by Fournier in certain cases of rapid disappearance of specific symptoms when this method is employed, are not in a certain measure imputable to non-administration simultaneously of the iodide.—*Journal of Cutaneous and Genito-Urinary Diseases*.

Whooping-cough.—Murrell has used oil of amber for some years, both internally and externally, in the treatment of whooping-cough. He orders a teaspoonful to be rubbed in along the course of the spine night and morning. For internal administration three to ten drops may be taken every four hours on a piece of sugar or a crumb of bread, but in the case of children the following is preferable:

Oil of amber, 10 minims.
Powdered gum Arabic, 1 drachm.
Syrup of orange flower, 2 drachms.
Oil of anise, 3 minims.
Water, to 1 ounce.

The following is useful as a liniment:

Oil of amber, 6 drachms.
Oil of rosemary, 1 drachm.
Oil of origanum, 1 drachm.
Oil of turpentine, 1 ounce.
Linseed oil, to 4 ounces.

Amber oil is a common article of commerce, and more extensive trials will show that it is a useful therapeutic agent.—*Clinical Sketches*.

Glycerin in Affections of the Stomach.—Some years ago Doctor Sydney Ringer recommended the administration of glycerin by the mouth in certain affections of the stomach. Acting upon his suggestion, Sir James Sawyer has since treated many cases of painful gastric digestion, such as are usually attributed to subacute or chronic catarrh of the gastric mucous membrane, with glycerin, and with satisfactory results. So far as he has seen, this employment of glycerin is not widely extended in professional practice, and he has not noticed further reference to it in the periodicals. The familiar routine seems to be a ringing of changes upon bismuth, alkalies, acids, and digestives. Many cases of gastric maladies of the kind indicated yield to glycerin. He gives one drachm, a drachm and a half, and sometimes even two drachms, with a little of some simple bitter stomachic tincture, diluted to an ounce with water, thrice daily, between meals.—*New York Medical Journal*.

Melancholia Cured by Operation.—A man, aged forty-two, suffered from depressive melancholia, at first periodical but later constant, and became unfitted for business. He complained of the eyeballs feeling as if too large for the sockets, and of a bursting pain between the eyes; at different times had been operated on for varicocele, stricture, ligation of pudic artery, removal of testicles, and

hæmorrhoids; had worn glasses; had his eye-muscles cut, and one eye enucleated; had been circumcised; his spine cauterized; and had worn a seton in his neck. Examination of the nose showed the right nostril nearly occluded by a thickened bulging of the cartilaginous septum, and the left middle turbinate thickened, with myxomatous degeneration, and evidences of ethmoid disease. The nostrils were freed with saw and snare, and all symptoms quickly disappeared.—BOSWORTH, in *International Medical Magazine*.

Cystitis.—Oil of sandalwood is almost a specific in cystitis, or catarrhal inflammation of the bladder. Professor E. M. Hale, of Chicago, says he has always succeeded in curing catarrhal inflammation of the bladder with this oil; also with oil of cubebs and kava kava. Where there is a profuse discharge of muco-pus or mucus, he adds chimaphila extract. The following is a good form in which to give these remedies:

Copaiba, 30 minims.
Oil of sandalwood, 15 minims.
Oil of cinnamon, 15 minims.
Emulsion of acacia, 4 drachms.

From a teaspoonful to a dessertspoonful every three or four hours.

This formula may be changed to suit cases. Some cases may require the kava, etc.—I. J. M. Goss.

Formaldehyde in Gonorrhœa.—Aaronson, Blum and others have demonstrated the property of formaldehyde to make its way into the deeper layers of the tissues, and have also demonstrated its great disinfecting properties. Orloff made a test of the substance in gonorrhœa, and in ten cases had most excellent results, the gonococci disappearing rapidly and the discharge quickly losing its purulent character. The remedy can be used in the earliest stages of the disease, in which other injections are contra-indicated on account of their tendency to drive the infection further into the urethra. The injection should never be made stronger than five per cent. of the formaldehyde.—*Western Druggist*.

Carbolic Acid in Tetanus.—Doctor Baccelli injects from fifteen to thirty one-hundredths of a grain of carbolic acid every hour or every two hours into the region of the rigid muscles, keeping watch for symptoms of carbolic-acid poisoning, and has found that tetanic patients have a decidedly heightened tolerance of the remedy; as much as three grains in the course of a day is well borne in

many cases. Both Italian and other physicians have witnessed the efficacy of this method of treatment in numerous instances. Babes, who has tested it experimentally and cured tetanized dogs, pigeons, and rats with it, ranks it as superior to any other treatment.—*Centralblatt für Innere Medicin*.

Potassium Bitartrate.—Cream of tartar, in the dose of twenty to thirty grains, often removes congestions of the kidneys, and of gastro-intestinal mucous membranes, by stimulating the circulation of the liver, hurrying away the blood out of the radicles of the portal vein, depurating the whole sanguineous and chyliferous systems, and by quickening the activity of the vital movements of the liver cells. This is only an illustration of physiology applied to practical medicine. There is an immense territory of this kind of medical lore to go over, and he who is the best posted man in this lore must win renown through his success in practice.—JOSEPH ADOLPHUS, in *Georgia Eclectic*.

Pneumonia.—Opium, by relieving pain, contributes greatly to the saving of strength; and chloral, by inducing sleep and quieting restlessness, contributes much toward enabling the nervous system to maintain control. The best remedy is the local hypodermatic use of one-twelfth grain of morphine, repeated in two, three, or four hours. The internal use of one-sixteenth grain of morphine every two or three hours serves to keep pain in abeyance, reserves the strength of the patient for further use, and promotes heart-rest. Another great advantage of the morphine is that the cough is quieted and thereby another source of exhaustion is prevented.—L. J. MOYER.

After-pains.—In many cases a nice warm meal is better than any medicine; still, where the pains are exhaustingly severe, I turn to amyl nitrite. This potent drug is a very efficient controller of after-pains, and, used cautiously, I see no reason to apprehend harm from it. A neat way of using it is to saturate a small piece of tissue paper with five or six drops, stuff this into a two-drachm vial, and request the patient to draw the cork and inhale the odor when she feels the pain coming on. It acts with magical celerity.—WINTERBURN, in *Journal of Obstetrics*.

Fibroid of the Uterus.—The age of a patient will at times determine the plan of treatment. Thus, a woman who is nearing

the menopause, and who has a small tumor which has been quiescent for some time and causing no pressure symptoms or serious hæmorrhage, can well afford to try the effects of medication with the hope that the change of life will cure the disease. A younger woman, on the other hand, cannot with safety allow the tumor to remain.—*New York Medical Journal*.

Itching of Scrotum.—

R Picric acid, 9 grains.
Vaselin, 450 grains.
Lanolin, 450 grains.

Or,

R Picric acid, 15 grains.
Vaselin, 225 grains.
Lanolin, 225 grains.

For external use.—*Revue Internationale de Médecine et de Chirurgie*.

Vomiting of Perityphilitis.—The following is attributed by the *Gazette Hebdomadaire de Médecine et de Chirurgie* to Pick:

R Menthol, 8 grains.
Cognac, 600 grains.
Tincture of opium, 150 grains.

M. From ten to twenty drops are to be taken several times during the day, in a little sweetened water.

—*New York Medical Journal*.

Palatable Senna for Children.—Although nearly forgotten, Schoenlein's senna jam served as the prototype of the various fruit, fig and tamarind laxatives of to-day. It is made by merely boiling together powdered senna and prunes in sufficient water and then rubbing through a fine sieve. The resulting jam is greedily eaten by children without suspecting its medicinal nature.—*Therapeutische Monatshefte*.

Post-partum Hæmorrhage.—Turpentine is a prompt and efficient remedy. A piece of lint saturated therewith should be carried directly into the uterus so as to bring it into contact with the inner surface. In cases where the patient was almost pulseless it seemed to act as a stimulant, but on no occasion did it fail to instantly check hæmorrhage and produce contraction.—*Cincinnati Lancet-Clinic*.

Cannabis Indica for Itching.—Indian hemp will give relief in the itching of skin disease not amenable to local treatment. The full

effect of the drug must be produced promptly. I employ the tincture in doses of five or ten drops on sugar, repeated as necessary.—MACKENZIE, in *American Practitioner and News*.

Lead Colic.—

R Epsom salt, 1 ounce.
Dilute sulphuric acid, 1 drachm.
Water, 4 ounces.

A tablespoonful three times a day, preceded by ten grains of potassium iodide.

—BRUNTON.

Water.—When judiciously taken in half-pint doses as a laxative in the morning, as a sedative at night, as a diuretic when the skin is cool, as a diaphoretic when the skin is warm, as an expectorant or a refrigerant, its value is remarkable.—PYE-SMITH.

Mumps.—Turpentine, in the usual doses, according to the age of the patient, is a specific against mumps. The patients quickly recover, and without metastasis to other organs.—DOCTOR HOLDEN, in *Massachusetts Medical Journal*.

Value of Raw Beef.—This is of great benefit to persons of frail constitution, if prepared by being chopped fine, seasoned with salt, and heated by placing in a dish of hot water. It assimilates rapidly and affords the best nourishment.

Psoriasis.—In prescribing for an obstinate case which had resisted all other forms of treatment, Doctor Cantrell found the oil of copaiba in five-minim doses, thrice daily, gave surprising results.—*Philadelphia Poly-clinic*.

Bronchitis of the Aged.—

R Benzoic acid, $4\frac{1}{2}$ grains.
Tannic acid, $2\frac{1}{4}$ grains.

M. For one powder. Take four or five such daily.

—*Le Progrès Médical*.

Atony of Bladder.—Keen says strychnine is the only drug that produces any beneficial results, and is best administered in combination with ergot, cantharides, or tincture chloride of iron.—*Medical World*.

To Abort Tonsillitis.—Gargle frequently with guaiac. It will, it is said, also prevent an onslaught of the disease.

Medical Progress.

OSSIFICATION OF THE THIRD TROCHANTER IN MAN.*—Some time ago I noticed that the femur of a young subject dissected in the School of Anatomy, Trinity College, Dublin, possessed, in addition to the usually described epiphyses, a small epiphysis for the gluteal ridge or third trochanter. The subject was a male of about seventeen years of age, and unfortunately the left femur only was preserved. The epiphysis for the third trochanter is a flat, narrow scale of bone, placed with its long axis corresponding to that of the shaft of the femur. Its upper end corresponds to the level of the lowest part of the small

(3 of cut) is the left femur of a boy of fifteen years; the other (1 of cut) is the right femur of an older individual, the sex not noted. In neither of these latter specimens is the epiphysis of the third trochanter as extensive as in the femur first described. In one, indeed, it is not more than five millimeters in its longest diameter, while in the other it measures about ten millimeters. In both cases its position corresponds to that described in the first case, its upper end being placed on a level with the lower part of the small trochanter. Although I have only been able to prove the presence of this epiphysis in the three femora figured, yet the appearance of the upper part of the gluteal ridge in a number of other bones leads me to believe that, in many cases



FIGS. 1, 2, 3.—The upper parts of three young femora, to show the epiphysis for the third trochanter.

trochanter, while its lower end lies just above the groove so often present in the region of insertion of the gluteus maximus muscle. (See 2 of cut.) The epiphysis measures twenty-five millimeters in length, and twelve millimeters across its widest part. I have made an examination of a large number of femora in the Anatomical Department of Trinity College, and also of a number of young and adult bones kindly loaned for the purpose by Professor Cunningham from his private collection, and found similar epiphyses in two other young bones. One of these

at all events, this part of the bone is added to the femur as a special epiphysis.

With regard to the ossification of the third trochanter in those lower animals which possess one, I have been unable in the literature at my disposal to find definite information. An examination of a number of skeletons, however, shows that a special centre may be present for it. This is easily demonstrated in the rabbit; and another rodent—*Cælogenys paca*—preserved in the Natural History Museum, Trinity College, affords a beautiful example of the same fact. In the rabbit, the special centre simply forms a thin scale over the strongly marked third trochanter, while in *Cælogenys* it appears to

* By A. Francis Dixon, M.B., Chief Demonstrator of Anatomy, Trinity College, Dublin.

form the whole third trochanter, which is here not so strongly developed.

Among Perissodactyla, the tapir possesses such a centre,* and also the horse, although the usual descriptions do not take note of it; still Franck, in his *Anatomie der Haussäugethiere*, describes a centre for the third trochanter of the horse. It is, however, he says, sometimes absent. I am indebted to Professor J. McFadgean for this information regarding the femur of the horse. On the other hand, Owen, speaking of the third trochanter of the rhinoceros, says "ossification sometimes extends from the great trochanter to the third trochanter." I have had no opportunity of examining a young specimen of this animal, yet I would venture to suggest that in the rhinoceros also a special centre may be present both for the third and the great trochanter, and that they unite in some cases to form a single epiphysis. This might give rise to the appearance of an extension of ossification from the great to the third trochanter. In one specimen of *Calogenys paca* that I have had opportunity of examining, the epiphyses of the great and third trochanters are in actual contact, although distinct.

The fact that the third trochanter of man thus closely resembles in its mode of development that of lower mammals adds to it an interest, especially as the presence of this trochanter is stated to be a characteristic of the femora of higher rather than of lower races, and of man rather than of apes.—*Journal of Anatomy and Physiology*.

LOCAL PERITONITIS.—The local peritonitis of adults is hardly ever directly fatal, but may produce a train of symptoms, such as indigestion, malnutrition, anæmia, and neurosis:

The peritoneal adhesions which demand operation belong almost exclusively to those involving the organs of high mobility and peristalsis, such as the small intestines, the sigmoid, the bladder, and the Fallopian tubes (especially amputated ones):

Local peritonitis occurs at fixed bowel flexures, and at the longest range of muscular action associated with the peritoneum:

The ætiology of the adult local peritonitis is infectious invasion through the gut-wall:

The methods of transmission of infection are through abrasion of the mucosa, aided

by the trauma of muscular action on a bowel containing pathogenic microbes:

Local peritonitis does not occur in infants at bowel flexures, or especially over the long range of muscular action:

It is extremely rare to see an adult with a normal peritoneum—*i.e.*, free from peritonitis:

The constant adhesions found around the gall-bladder and cœco-appendicular apparatus teach us that operations in these regions cannot be justified merely on account of the adhesions:

Adult local peritonitis seems to increase with age:

Peritonitis is nature's method of repair and prophylaxis; peritonitis saves life, while infection kills:

Peritonitic adhesions seem to be able to organize and appear and act like normal peritoneum:

Local peritonitis occurs chiefly in the dorsal region, at the points where the mesenteries fix the digestive tract and close to the highest range of muscular action. Muscular trauma, abraded epithelia, and infection tell the tale:

The track of the infection from mucosa to serosa cannot always be traced—a healthy mucosa (and even muscularis) may underlie many peritoneal adhesions, or a healthy serosa may be adjacent to diseased mucosa:

The dense adhesions of local peritonitis may result in strictures, malignancy, dislocated viscera, pain, restriction of peristalsis, and immobility of organs—disease:

The peritoneum may have its endothelium abraded traumatically by muscular action, and the resulting healing be cicatricial; the matter of local peritonitis being a slow, gradual, evolutionary process of adult life. —ROBINSON, in *New York Medical Journal*.

CLINICAL SIGNIFICANCE OF THE HAND.—

The diagnosis between gout, rheumatism and rheumatoid arthritis is often one of extreme difficulty; and it is here that the observation of the hands is of the very greatest utility. The hand affected by chronic rheumatism may be distorted into all sorts of curious shapes, partly to be explained by the laws already given, partly due to pressure of bony outgrowths or to changes in ligaments and atrophy of supporting muscles. The hand erstwhile in the throes of rheumatoid arthritis may exhibit much the same lesions, due to the same forces at work, but above all, and masking all, is generally to be seen the original deformity—the characteristic swellings,

* Specimens showing this are preserved in the Natural History Museum, Trinity College, Dublin, and also in the Museum of the Royal College of Science, Dublin.

once soft and impressible, now hard, calcareous, and fixed. Tubercular dactylitis may at first sight closely simulate rheumatoid disease in children; but the spindle swelling is caused by bone expansion, and is accompanied by suppuration, in both of which points it differs essentially from the latter disease. The other group, the rarer diseases, are as follows:

Paget's disease (osteitis deformans).—The cranium and long bones are the parts usually affected; and, though the hands sometimes show changes, these are hardly diagnostic and are very rare:

Acromegaly (of Marie).—The large size of the hands is due to the excessive development of all the tissues; there is no appreciable increase of length, only of width and thickness, earning for the hands the epithets "battledore" and "spadelike." The wrists are about normal; the nails are somewhat flattened, small, and longitudinally striated:

Hypertrophic pulmonary osteo-arthropathy.—The carpo-metacarpus, the hand proper, is about normal in size; but the fingers are enormously enlarged, the bulbous terminal phalanges being especially prominent; the nails are curved and striated, reminding one of the beak of a parrot; there is great enlargement of the wrists:

Myxœdematous hands may at first sight be mistaken for either acromegaly or hypertrophic pulmonary osteo-arthropathy; but it will be seen that the skin of the other parts of the body is involved, and that it is adherent to the deeper structures:

Vaso-motor paralysis of the extremities.—A few rare cases have been set down to this cause, and may somewhat resemble the foregoing; the presence of subcutaneous hæmorrhages may clear up the diagnosis:

The hands may exhibit marked changes in rickets, which in rare cases may simulate some of the former diseases; but an examination of the rest of the body will generally readily afford the data for a diagnosis:

In leontiasis ossea (Virchow) the hands may be affected; but for diagnostic purposes the changes are unimportant:

Nodosities of the fingers have been noted in connection with dilatation of the stomach.

I do not pretend to have exhaustively treated even one aspect of this subject, and have left untouched the clubbed fingers of emphysema, abnormal and extra digitation, Dupuytren's contraction, Raynaud's disease in connection with rheumatism, and all the thousand and one things that crowd to one's mind when it is allowed to rest on the subject.—DOCTOR A. S. WOHLMAN, in *Bristol Medico-Chirurgical Journal*.

WHAT IS NATURAL LABOR?—Rentoul finds fault with the loose construction put upon the term "natural labor" in laws regulating the practice of midwifery nurses, and proposes the following definition: "Labor at the ninth calendar month, in a woman free from organic and functional disease of the heart, lungs, kidneys, brain, and other internal organs, and from all fever diseases; when there is no impediment in the maternal passage, of either soft or hard nature, to the passage of the child; when there is only one child in the womb; when the vertex of the child alone presents in either the first or second occipito-anterior position; when labor is completed within twelve hours from its commencement; when a living child is born; when neither instrumental nor manual operations have been required; when the afterbirth comes away without the use of manual operation within twenty minutes after the birth of the child; when there is no laceration of any portion of the parturient structures; and when the mother does not die within thirty-one days after confinement; and when there is no puerperal fever."—*British Medical Journal*.

RELATIONS BETWEEN CEREBRUM AND LABYRINTH.—Ewald and Hyde have been investigating the after-effects of disturbances in the labyrinth in different animals, which tend to change into substituting phenomena, more or less; and the higher the animal in the scale of nature, the greater this tendency. They removed the cerebrum from frogs whose labyrinths had already been removed, but found this had very slight influence on the substituting process, which is insignificant in these animals. Experiments on doves showed that the removal of the cerebrum had a decided influence in preventing it. They consider their experiments conclusive that the cerebrum plays a most important part in these phenomena, and expect to prove it beyond question by the experiments on dogs they are now undertaking.—*Medical News*.

X RAYS AND ŒSOPHAGEAL SURGERY.—Doctor J. William White was recently enabled to determine exactly the location of a foreign body—a "jack-stone"—in the œsophagus of a child, by means of a skiagraph. The photographic representation showed the foreign body to be located just above the level of the transverse aorta and left bronchus, a position of great delicacy. Gastrotomy was performed and the occluding body removed.—*Chicago Clinical Review*.

The Medical Age.

VOL. XIV.

DETROIT, SEPTEMBER 10th, 1896.

No. 17.

Original Articles.

PERIODIC AUTUMNAL CATARRH—"HAY FEVER."

BY A SUFFERER.

"Civilization by its advancement constantly entails new ills to mankind," is an assertion of many philosophers, ancient and modern. Democritus long before our era formulated it as an axiom; and that it is not without a measure of truth is evidenced by the accessions to our medical nosology and nomenclature.

It is only within three-fourths of a century that the distressing malady popularly and erroneously denominated "*hay fever*" or "*hay asthma*" has been recognized as a malady *sui generis*, or attained sufficient prominence to secure a place in medical literature. That it is distressing, every one must admit who has been brought in contact with its victims or suffered from its paroxysms. Then, too, it is almost despicable, since, in spite of the suffering it entails, it possesses none of the elements that can be considered as dangerous or threatening to life, which might in some degree console its victims by exciting the sympathy of the exempt; but instead, it is self-limited, both in course and recurrence, even though, chameleon-like, its manifestations are seldom exactly alike twice in the same individual, and seldom attended with the same precise phenomena in each season.—Its phases are as multiple as its victims, and as numerous and varied as the meteorological caprices of its environment.

Absurd and paradoxical as it may appear, the malady is a sort of *locum tenens* luxury, and, like all other luxuries, its procurement is accompanied by no little personal sacrifice and cost. Then, its recurrence tends to inculcate habit, since it fastens more firmly, and becomes more and more exacting, with

each season. The evidence of this rests in the fact that if the attacks are anticipated for several seasons in succession by removal to regions outside its pale, the force of the annual habit is lessened, and, while the tendency may not be altogether obliterated, the acuteness of the paroxysms is notably mitigated for a considerable period.

No age is exempt. Moulton observed it in a child eight years old, and Wyman in one three years younger. It prefers the temperate to the torrid zone; altogether ignores the Far North, where the intense heat of the brief summer would seem to invite its appearance and residence; dreads the highlands with their rarefied air; and hates the vicinity of large bodies of water with all the intensity Satan is supposed to manifest toward the holy church font. It chooses the city in preference to the country and forests; seeks out the man rather than his helpmeet—though the fair sex are not wholly immune from its terrors; and in whatever part of the world it appears, the victims are almost exclusively selected from among the Anglo-Saxon, or at least the English-speaking, race. Moreover, it is aristocratic as well as autocratic in tendencies, since it passes by the poor, ignorant, rude and lowly, to prey upon the wealthy, the gentle, the sedentary, and the intellectual: it is the bane and curse of the courtier, and the mock and jest of the clown.

The origin and history of autumnal catarrh are alike shrouded in uncertainty and obscurity. In the early part of the present century (1819) Doctor John Bostock, himself a sufferer, described the disease under the name of *Catarrhus Æstivus*, or "summer fever," in the *Medico-Chirurgical Transactions of Great Britain*. Nine years later a second communication from his pen appeared in the same periodical, that, if it did not offer new facts, at least announced the accessions that had been added to the malady as manifested in

himself. In this second essay he incidentally termed the trouble a "hay" fever, a pseudonym that was immediately adopted under the supposition the pollen of grasses was the immediate ætiological factor. The title thus unintentionally bestowed was perpetuated in good faith by Mr. Charles Blackley of Manchester, who in 1873 contributed an extensive monograph upon the subject, and boldly asserted that the disease depended for its source upon the ripening of the Graminaceæ, since he could "conceive of no other cause." In this, Blackley followed not only the teachings of Bostock, but those of Gordon (1829), Elliotson (1839), Abbott Smith, Pirrie, and More (1859); and, if I mistake not, Morrell Wyman (now a recognized authority on the subject) taught the same in Harvard in 1854, and perhaps later, though he soon after discovered good grounds for abandoning the theory. Elliotson opined the offending growth was the *Anthoxanthum odoratum*, basing his views upon the fact it flowered in Great Britain at about the time "hay" fever is wont to manifest itself; others ascribed it to *Anthemis macula*; and elaborate arguments were offered from time to time to sustain these positions. The fallacy in both instances was proven in the United States, where these plants are alike common, flowering in May or June, while the disease, save in some few instances, does not manifest itself until the middle or latter part of August. It will be observed the malady in England recurs in mid-summer, in June or July, or about the time of the hay harvest, and is the analogue of what on this side of the Atlantic is termed "June" or "rose" cold; and while the flowering of *Anthoxanthum* and *Anthemis* corresponds to the period of the malady abroad, in the "New World" there is a discrepancy of from nine to thirteen weeks between the ripening of the pollen of these plants and the onslaught of "autumnal" catarrh. Again, farmers, farm laborers, florists, gardeners, coachmen, hostlers, and stable boys, people whose callings especially tempt the malady if grasses be at fault, are rarely or almost never its victims—in an experience of thirty years I fail to recall a single instance in practice or in medical literature. Still, the general impression, not only among the laity but among a majority of the medical profession, in Great Britain,

appears to be that the malady as found there is intimately connected with the harvesting of grasses, and that if the latter are not producing causes they at least intensify the paroxysms, as may be judged from the fact that so eminent a man as Doctor F. De Havilland, F.R.C.P., of Westminster Hospital, writes to the *British Medical Journal* (June 15th, 1889):

The return of the hay season and the prospect of there being an unusually abundant crop this year, has induced me to direct attention to hay fever, which is a subject of ever increasing interest.

Again, Doctor Bertram C. Windle, Professor of Anatomy at Queen College, Birmingham, remarks (*Birmingham Medical Review*, December, 1888):

As to the cause of the disease, I have no doubt in my own mind that pollen of some kind or another—almost certainly that of some grass or grasses—is to blame.

In America, however, "rose cold," "June fever," and "cold," etc., are titles suggested by the idiosyncrasies of individuals who may suffer a real coryza, or asthma, as the result of habit, or from a hypersensitiveness of the respiratory apparatus that induces this condition when brought in contact with the leaves, flowers, pollen, etc., of certain trees, shrubs, or plants: the down of rose petals or leaves, or "fuzz" from the skin of the peach, or rind of muskmelon, is often at fault—in some localities the pseudonym of "peach cold" obtains. Those who suffer from "June cold," often escape the autumnal coryza which is the most common form, while others suffer from both, with a brief period of relief intervening.

Rag-weed (*Ambrosia artemisiæfolia*), in America, is more generally accused of causing the malady; and while the supposition has no basis in physiology or fact, observation and experiments that have been made with a view of determining the exact relation of this growth evidence its complicity oftentimes, not as an original or producing factor, but in intensifying and accelerating the course and paroxysms or the asthma: the evidence is such that, in the light of the public weal, municipalities should at least take measures to repress the blossoming of rag-weed within their boundaries, and to prevent its growth.

Among other theories that are worthy of mention is that of Helmholtz (advanced in 1869), who suggests the presence of vibrios that remain dormant in the nasal cavities during the winter and spring months, but are gradually warmed into activity by the heat of summer. Strange to say, at this time, when the microbe theory is rampant and held to be explanatory of all maladies, from warts to ague, and from "salt rheum" to cerebro-spinal meningitis and diphtheria, no one has as yet availed himself of the broad field for research afforded by periodic autumnal catarrh, which is still "going a begging" for a morbid germ. The hint herewith thrown out is offered gratuitously to some enterprising pathologist.—It must first be assumed, however, that artificial heat is utterly powerless for incubation.

Thus far I have employed the name Periodic Autumnal Catarrh as indicative of the malady known as fever, asthma, catarrh, coryza, cold, etc., with all the adjectival denominations of "hay," "summer," "rag-weed," "pig-weed," "peach," "August," "pollen," "idiosyncratic," *et al.*, but the title is inappropriate and inexact, for, as already shown, precisely the same symptoms and paroxysms manifest themselves at different seasons, in different localities and in different individuals, and it may be added they are not always strictly periodic. The proposed compromise of Doctor Phœbus, who suggested the title of *Frühsommer katarrh* ("summer catarrh"), is also open to objections, since, contrary to general and preconceived opinions, the malady may, and sometimes does, manifest itself in midwinter. One of the most interesting cases, from a medical standpoint, that has ever come to the knowledge of the writer, was that of an English gentleman who, though not a medical man, is well known to science—Richard Proctor. The asthma—for it partook of this form—occurred only during the cold months, and was always aggravated by a rime or hoar frost, especially if the latter was followed by a bright, sunny day. To employ the gentleman's own words in narrating the history of his malady: For many years prior to the first attack he "suffered from a cough—used to catch periodical colds; and with true cold came acute asthma," when he was "very

much distressed." After the asthma became chronic (attended by constant paroxysmal sneezing, coughing, phlegm, and eyes inflamed and watering) he scarce ever had a real cold.

Not all that is denominated autumnal catarrh, hay fever, or hay asthma, however, belongs to the class to which these terms are intended to apply. Many cases are in reality dependent upon abnormal growths and hypertrophy or thickening of the mucous lining of the throat and nasal cavities—conditions easily removed, and whose removal prevents further accessions of paroxysms. It is now known that polypoid growths tend notably to the production of asthma and other conditions that precisely resemble those induced by autumnal catarrh. Indeed, many of the more common asthmatic and bronchial affections arise from conditions no way pertinent, in fact grossly irrelevant, to hay fever, so-called. Within a year, in the experience of the writer, three cases supposed to be hay asthma were permanently relieved by the removal, in each instance, of numerous small polypi attached to the posterior border of the nasal septum; another was relieved simultaneously with the eradication of urethral stricture. It is not necessary, however, to here dwell upon this part of the subject, since at best it is but a side issue, and will be referred to again further on. All these facts, however, including the recurrence of asthma and coryza at different periods in certain individual cases, lead the way to the conclusion that so-called hay fever is simply an idiosyncratic paroxysmal malady of nervous origin, and may be induced reflexly, or directly through the series of nerves (vasomotor) distributed over the coats of blood-vessels: hence John Mackenzie suggests as an appropriate title, *Vaso-motor Coryza*. But, although this theory is generally accepted by modern physiologists and pathologists, the entire truth has not been told, since it is almost of too great dimensions to be grasped in its totality by ordinary comprehension; and the medical profession, to a certain extent, are in the position of the three blind men in the fable of Tolstoi, who, having mastered a fraction, imagined they had grasped the whole.

Sir Andrew Clark undoubtedly struck a

key-note when, in the Cavendish lecture for 1887,* he emphasized the doctrine that the evolution of vaso-motor coryza embodies three great factors: A nervous constitution or idiosyncrasy, sometimes inherited, sometimes acquired: A local condition of irritability, involving the nervous, vascular, and cellular constituents of the affected parts, and which, when excited, disturbs the chemical, morphological, and secretory changes taking place therein: External, exciting or determining causes; *i.e.*, the agents which are capable of calling into action the irritability of the parts concerned.

The first of these is so vague, and so little susceptible of any direct treatment, that to discuss it is impracticable—it would require a volume, so far-reaching is it into nerve pathology. In considering the second factor, namely, the condition of irritability of the mucous membrane, it must be remarked that in spite of the advances made in the study of this affliction, no matter whether it asserts itself as a vaso-motor coryza or as an asthma, the interior of the nose receives too little attention, the treatment being objective rather than subjective. This much, however, is recognized: When local irritability is provoked into action, then arise series of local structural changes which are characteristic of the onslaught of the malady; the erectile tissues of the nasal passages and posterior throat become distended; the blood-vessels are gorged; groups of lymph-cells fill the lymphatic spaces; the mucous surface is crowded with migrating leucocytes (white blood-corpuscles); younger epithelial cells are vacuolating and proliferating; secretion is increased in quantity and altered in character and composition; sensation is heightened, intensified, altered, or benumbed, and the whole metabolism of the affected region profoundly disordered.

As regards the third factor, there is, of course, as already remarked, an overwhelming weight of evidence in support of the view that pollen and other plant or fruit products are the most potent in the way of aggravation, and as external exciting causes. It is contended that the disease may be prevented from developing, or be cured when present,

by dwelling on board ship at sea, where no pollen is to be found; that it obtains both as "June cold" and "autumnal coryza" only during the season when certain flowers or grasses are in blossom; and that it may be artificially induced in the immune and exempt by the application of the blossoming products to the nasal mucous membrane. Mr. William Murrell, of Westminster Hospital, London, cites as the most guilty plants not only the *Anthoxanthum odoratum* ("sweet-scented vernal grass"), but *Bellis perennis* (the common daisy of England), *Lolium perenne* (rye-grass), and *Holcus odoratus* ("sweet-scented soft grass"), while in India, where the malady occurs chiefly in February, it is the blossoms of the mango tree (*Mangifera Indica*) that are held responsible. Again, in the United States I have known Indian corn (*Zea mays*), flax (*Linum usitatissimum*), and millet (*Panicum miliaceum*), as well as pig-weed or goose-foot (*Chenopodium album*), hog- or rag-weed (*Ambrosia artemisiæfolia*), smart-weed (*Polygonum hydropiper*), and the Rosaceæ, each and all, to be accused. One lady informs me that during portions of June and July, and also of August and September, she is unable to approach a rose tree, to remain in a room where the flowers are, or anywhere in their immediate vicinity, without the most distressing paroxysms being induced, though after the advent of frost and until the next succeeding June the odor may be inhaled with impunity. A former patient, an elderly widow, is equally susceptible. Trousseau was in like manner affected by violets.

Now, while it must be admitted that these contentions are in some degree just, and that plants are common sources of aggravation (and perhaps in some instances the immediate cause of the disease), it cannot be denied that they lack qualifications, and that they are inadequate to a complete explanation of *all* the facts which go to make up the history of periodic coryza and asthma. Looking closely into the matter, it is found the supposed provocations are as numerous almost as the "leaves in Vallambrosa" or the number of individual sufferers; also that persons free of the malady suffer from attacks simulating "hay" fever, owing to certain personal idiosyncrasies. For instance: Cullen refers to a case in which the most

* *British Medical Journal*, June 11th, 1887.

intense agony was induced by the vicinity of a rice-threshing floor, regardless of the period of year at which the grain was separated from the husk: Sir Thomas Watson mentions a servant employed in the laboratory of St. Bartholomew's Hospital who had the peculiar ill-luck to be liable to this affection when in the presence of ipecac, and whenever this drug was in preparation he was obliged to fly the place; and he adds, "This idiosyncrasy is by no means uncommon." William Smith records instances of "hay" fever provoked by linseed meal, and by mustard; William Murrell, by powdered colocynth ("May apple"), the effluvia of a clean pocket-handkerchief fresh from the ironing-table, locust-tree blossoms, mulberry blossoms and fruit, etc.; Sydney Ringer, by the exhalations from monkeys, dogs, cats, horses, rabbits, guinea-pigs, cattle, and wild animals. Hyde Salter tells of a clergyman in whom an attack was always induced by the vicinity of a dead hare, and hence he was always able to detect a successful poacher; this gentleman once had a severe attack in consequence of a hare-skin placed under his sofa as a joke. H. Charlton Bastian also, in the *Philosophical Transactions*, relates like effects as invariably produced on himself while working at the anatomy of the *Ascaris megalocephala*, or "mange" insect of the horse. Ringer and Murrell report the case of a young gentleman, many of whose relatives suffered from "hay" fever, one sister being a "cat asthmatic;" he was always made worse by the vicinity of equines or of persons who had been about stables; and one night an attack suddenly supervened in a theatre, without any appreciable reason until, suddenly, a horse galloped onto the stage, when the young man was forced to leave the building. The exfoliations from the glands on the inner aspects of the legs of the horse are very irritating to the writer.

The following case, taken from Ringer and Murrell, is unique:

A gentleman of neurotic temperament, about the age of fifty, suffered from acute pleurisy, the result of exposure to cold and wet while out shooting, and ever afterwards was subject to what he called "hairy-caterpillar asthma." If by any chance he touched a caterpillar, especially a very hairy one, he

was immediately seized with a "hay"-fever paroxysm lasting an hour or more, and that began with sneezing, itching, and irritation of the eyes and nose, with profuse watery discharge from both. He was not in the slightest degree affected by pollen, and could pass hours in the presence of animals without inconvenience. One of his daughters was a "cat asthmatic."

Several cases of interest, as showing the influence of light as an exciting cause, are related by the same authors, and one is also a good example of what may be termed the mixed paroxysmal phase of the malady, the attacks being induced not only by pollen, but by other causes:

The widow of a clergyman has suffered many years. The attacks occur all the year round, but are most severe in summer. They often occur the first thing in the morning, as soon as she begins to move in bed. They are excited at any time by grasses, roses, privet, and in less degree by other flowers. Driving in the face of a strong wind will always bring on an attack. Any dust, especially that of a bed-room, is equally efficient, and sunlight is also a frequent exciting cause. Food at once affords relief, even when no stimulant is taken, the symptoms subsiding before the meal is finished. She never catches cold in the head, and the chest is not usually affected. The attacks last from one to two hours, and are followed by great exhaustion, but are always aborted or relieved by going into a dark room. It is worth mentioning that her daughters suffer from the same complaint.

These are exceptional cases, which might be multiplied by citations from different authors. The ordinary "hay" fever, or paroxysmal periodic coryza, is of annual recurrence, and returns oftentimes on the same day each season, almost at the same hour, in each individual; in very few cases is there a variation of more than a few days. But it is not of equal severity in each year, since it is more or less dependent upon the character of the season and meteorological conditions; in some it never exceeds in severity a mild cold, while in others it is a most serious affair, perhaps attended with profuse expectoration of mucus soaked with blood.

From the 15th to the 20th of August, usually, in North America, the sufferer experiences an itching of the mucous membrane of

the eyes, upper throat, and nostrils, which at times becomes so intense as to be almost unbearable, accompanied by inordinate and most comprehensive sternutations, often without apparent cause though frequently provoked, seemingly, by a bright light, cool current of air, or trifling exposure, such as tends to produce ordinary catarrh.

At first the paroxysms are infrequent and of moderate severity, but soon the intervals between the accessions are shortened and the manifestations become more and more violent.

Sneezing may begin while dressing or at breakfast, the attacks being prolonged, but unaccompanied by the grateful sense of relief that ordinarily attends such manifestations, and, strange to say, exertion seems to intensify the paroxysms and the feeling of discomfort induced; at the same time there is slight acceleration of the pulse, with general slight febrile excitement, hence doubtless the title "fever" that obtains frequently with one or another of the popular adjectives prefixed.

In a week or ten days, probably, symptoms of bronchial irritation supervene, with dryness and injection of the throat, followed by a tickling cough that rarely results in any amount of expectoration. The latter, after a time, is more severe and paroxysmal in character, and not infrequently induces severe pain and soreness in the chest, which may or may not be materially relieved by the establishment of an expectoration. Like the catarrh of coryza, the bronchitis varies in intensity in different individuals, and also in the same individual in different years.

In many cases, after a most harassing experience extending over ten days or a fortnight, both the coryza and bronchitis lose their severity, though by habituation they are likely to hang on more and more persistently with each succeeding autumn. In the former instance the coryza entirely disappears, and while the cough and bronchitis may persist as a most exasperating tickling, especially toward nightfall and in the evening, convalescence gradually merges into recovery lasting until the next season rolls around, the whole course of the disease having lasted but three or four weeks. With the latter, and most old "hay"-fever sufferers, especially if the gamut of sedative remedies has

been well gone over, relief is only obtained by the advent of frost and cold day-weather, the disease perhaps persisting six or eight weeks; this is the experience of perhaps a majority, and also of the writer.

This is a fair outline of the purely catarrhal and bronchial form of the malady.

But then there is the asthmatic form. In many the advent of cough is accompanied by asthmatic symptoms of more or less severity, beside which every other discomfort palls. Indeed, more harrowing asthmatic manifestations than accompany this malady are rarely or never witnessed. This form is especially apt to exhibit many vagaries. It may be absent one year, only to recur the following season with redoubled severity, from some specific cause or extra irritation. Usually it supervenes between the 25th of August and the 1st of September, first manifesting itself after a severe fit of coughing, change of wind and weather, or from some unusual exertion such as running up stairs, and is a source of greater or less torture and torment until dissipated by cold weather or other atmospheric changes. It may appear as a sequel to the catarrhal form.

There is always manifest difficulty in breathing, accompanied by true asthmatic gurglings or râles, though exploration of the chest by means of percussion reveals nothing more than increased resonance indicative of the presence of air in the intercellular lung tissue, while the ear detects dry, cooing, sibilant murmurs forcibly suggestive of the whistling of the bellows of an organ; in fact, these sounds are frequently clearly audible at considerable distance, and greatly intensified upon the approach of a paroxysm, of which, in connection with increased difficulty in breathing, they give warning.

Those who have never seen or felt these paroxysms can have no idea of their severity. It is impossible for the sufferer to find any position of comfort or relief; he cannot lie upon his back, or even recline in an easy chair. Whether sitting or standing, and wherever overtaken by the paroxysm, he seeks a firm object on which to lean his wrists or elbows, and gasps for breath. Now the sonorous chest-sounds gradually subside, while inspiration becomes inaudible and lengthened, and expiration correspondingly

shortened and hurried. He is quickly all but overcome by exhaustion, but the struggles to secure the desired supply of oxygen are unrelaxed, since they are to a certain extent involuntary. This may last for a period varying from a few moments to hours, and relief is obtained only as the wheezing sounds again assert themselves, being accompanied by less hurried respiration and mitigation of the feeling of impending suffocation. If the improvement is not interrupted by another paroxysm, an expression of relief replaces that of suffering and anxiety, and the unfortunate is apt to fall asleep without much care or reference as to position, place, or comfort.

Many causes operate to produce these conditions. A well understood physiological fact is, that an inflamed condition of the mucous membrane in one portion of the body excites irritation in the same tissues throughout the economy generally; consequently the catarrhal condition that obtains to the nasal passages—it often seems to commence with the conjunctival membrane of the inner corner of the eye—creates disturbances by sympathy and extension that, to the uninitiated, seem phenomenal if not impossible. It is by such extension that asthmatic and bronchial phenomena are induced, and in like manner the ears, digestive tract and urinary passages suffer. One individual known to the writer suffers excruciatingly from this malady, and the first evidence of an inception of the asthmatic attack is derived from more intense itching and irritation at the inner corners of the eyes, with frequently manifest inflammation of the mucous membrane of the lids, including the outer eye tunic, and a perfectly maddening itching of the back of the soft palate, extending *via* the Eustachian tube to the ear. In another the genito-urinary and rectal passages give first warning, by intense burning and itching—so intense at times as to be excruciating; an eczema about the anus is quickly set up, and the urethral suffering is almost unbearable. In one of the writer's patients, a more than usually severe morning paroxysm, such as is always apt to occur on rising, induced rupture of the capillary blood-vessels in the lacrymal caruncle or prominence of the tear-duct of the right eye, and caused engorgement of the organ and displacement

of the visual axis, entailing double vision for some days.

Among the most marked results arising from this malady, also, are the direct and reflex changes in the vocal as well as respiratory apparatus, varying from loss of timbre, and harshness, to complete inability to utter the nasal vowels and consonants. The voice may further become husky or hoarse on account of the supervention of inflammation of the larynx from the action of cold and impure air during oral respiration, that speedily extends to the bronchi. Nasal obstruction, in short, seems to me one of the most important and generally overlooked causes of the attacks of bronchitis and asthma, acting either reflexly by causing dilatation of the vessels of the bronchial mucous membrane, or by direct extension of inflammation. Vololini's discovery that in certain instances nasal polypi sustained a clearly causal relationship to asthma, has received such ample confirmation that its truth may be considered as indubitably established. More prolific even than polypi are the erectile-tissue tumors, often so small that their existence remains unsuspected until made manifest by accident.

The area over the inferior of the top-shaped spongy (turbinate) bones of the interior of the nose, and the contiguous portions of the septum, by some are considered as most likely to induce reflex irritation, owing to the fact that here is present an excess of erectile tissue; though my own experience leads me to believe that the posterior part of the area and the corresponding part of the septum are chiefly at fault; irritation of any part of the mucous membrane, however, under certain circumstances may induce such phenomena.

Asthma and cough, then, are induced by mechanical irritation of a hypersensitive mucous membrane, which may be due to the presence of polypi, erectile tumors, or to thickening of the membrane such as is induced by the simpler form of "hay" fever, particularly when the position of the head is such as to permit occlusion of the cavernous sinuses and cause increased turgescence of the mucous membrane. This is most apt to occur in the lateral recumbent posture, and explains why these attacks, as well as the

stiffness of the under nostril, occur so frequently during sleep, and more especially towards morning. Sneezing, and a copious flow of mucus from the nose, usually precede or accompany these attacks of asthma and coughing; sneezing, in itself, is a reflex act due to irritation of the fifth nerve, and, while it may be induced by irritation of nerves in other parts, is usually of value as indicating the precise locality of the irritation of the nasal mucous membrane. The very fact of the simultaneous occurrence of hypersensitiveness of the nasal mucous membrane, such as always occurs in "hay" fever that is accompanied by cough, asthma, or bronchitis, inculcates the necessity of a careful examination of the nasal cavities before undertaking any radical measures of treatment. It is not always possible to say whether this causal relationship obtains in a given case characterized by the presence of both pulmonary and nasal disorders, but a circumstance in favor of its existence is the appearance of the symptoms alluded to prior to the respiratory attacks, or hypersensitiveness attending the mechanical irritation of the nasal mucous membrane at other times than during "hay" fever, more especially if such irritation invariably provokes a reflex act such as cough or prolonged sneezing. A nervous basis is probably an important element in most of these cases, for not a few are manifestly hysterical or of hysterical origin.

One thing that markedly distinguishes "hay" fever from other catarrhal maladies of similar nature is its geographical relations. It does not exist over the whole of the United States or Great Britain, yet it would be a difficult task to define its exact limits. Numerous portions of England are immune, especially the high lands and sea-coast, and all or nearly all of Wales and Scotland. In America it obtains to the north of Lake Ontario in limited degree, but not on the upper side of the St. Lawrence; scarcely at all in the Province of Ontario north of the Welland Canal, until the Detroit River is reached, and it is wholly unknown to regions above the outlet of Lake Huron. In Michigan, however, it follows Lake Huron to above Saginaw Bay, finding victims even at Alpena, though residents of Buffalo, Cleveland, Detroit and Cincinnati are here usually immune.

On Lake Michigan its effects are lost above Ludington, while over on the Mississippi, in Wisconsin, it is felt as far north as the junction of the Chippewa, and in some seasons extends in a mild form to St. Paul, Minnesota. To the south it extends to the latitude of Memphis in the west, Knoxville in the central area, and Cape Henry on the Atlantic. In all this area there are immune districts at high altitudes, such as the Green, White, Adirondack, Allegheny and Catskill Mountains, and the southern New York region. Isolated spots, where the malady prevails, are found about Galveston, Texas; St. Augustine, Florida; Montgomery, Alabama; and Milledgeville, Georgia. Beyond the Mississippi, evidence and data are almost wholly lacking, but several persons have suffered at Denver, Colorado Springs, and Golden City, though denizens of cis-Mississippian regions here find relief.

Now regarding the relief and palliation of the malady. Unfortunately this is not very satisfactory, and when we take into consideration, in detail, all the facts and theories embodied with a view of formulating an intelligent plan of treatment, we find that not the least of the trouble is the fact there are at present held by authorities two more or less opposing views as to the causative significance of nasal disease. Certain authors and specialists, such as Daly, Roe, Bosworth, Sajous, etc., insist that some nasal abnormality or deformity is *always* present inducing the attacks. But here one may ask with P. McBride: "What *is* a normal nose?" McBride adds:

The question may appear absurd, but I am willing to run this risk if, by putting it forward, I can do a little towards moderating the enthusiastic zeal with which certain surgeons attempt to alter the nasal apparatus of their patients in conformity with what each individually deems an ideal normal nose. . . . For ten years I have examined the noses of all cases of middle-ear disease that have come under my notice, in private, hospital, and dispensary practice, and have found that even when changes are present that to the specialist's eye would appear very grave, the patients frequently suffer no untoward or unpleasant symptoms—that in a large number of cases, marked changes may exist without the presence of discomfort referable to the nose. And these facts lead me to believe that deviations from normal are by no means always to be regarded as fair game for the operator.

I heartily uphold Doctor McBride in the belief that in periodic catarrh or asthma no supposed abnormal condition of the nasal passages should be regarded as a cause, when persistently present in otherwise healthy individuals without reference to season or time, and that at other times than the "hay"-fever season induces no discomfort. More than one sufferer has had occasion to bewail the loss of the special sense of smell, owing to such interference, and without any definite mitigation of his malady. Nevertheless, there are instances where cauterization or excision of the sensitive areas of the nasal passages is of decided benefit; of which more anon.

It is perhaps needless to remark there is no absolute remedy for "hay" fever, except removal outside of the areas where the malady obtains: that is to say, apparent benefit obtained in any one year is no security against recurrence the year following; and the remedy that was efficacious one season may prove wholly inert the next; or that which relieves one individual to-day may be totally inadequate to the needs of another to-morrow. In fact, any form of treatment where attempt is made toward general application is sure to illustrate the correctness of the homely aphorism regarding one man's meat being another's poison.

Theoretically, the objects to be achieved are threefold: The soothing and strengthening of the general nervous system: The allaying of local irritability, and: The removal of the exciting cause. The two former are, of course, palliative chiefly, while the latter (and to a certain extent the first may be conjoined) presupposes radical relief.

To remove the exciting cause—or, to speak more properly, to remove individual susceptibility—is to prevent the recurrence of the paroxysms, for which there is, as already mentioned, but one definite remedy, namely, removal to regions outside of the "hay"-fever zone. Unfortunately, however, there are many who cannot avail themselves of this advice, and who consequently must be ever subject to the exciting causes of the malady.

Under such circumstances the most pertinent suggestion is, to follow the approved rules of hygiene, avoid as far as possible conditions that tend to aggravate, notably mental

weariness and worry—which are far more potent factors than are commonly supposed,—and to attend strictly to the maintenance of general health, strengthening as far as possible, by tonics and other means, the weak and irritable constitution. Indigestion, commonly termed "dyspepsia," is a most potent cause in many instances, and proper food, properly digested and assimilated, has permanently relieved more than one apparently confirmed asthmatic; amylaceous dyspepsia and intestinal superdigestion are very common among Americans, and often no inconsiderable factors in reflex maladies and vaso-motor disturbances, including periodic catarrhs—though by no means to be held as exclusive or direct causes of the latter,—and these are now for the most part readily amenable to treatment, thanks to the discovery of Mr. Jokichi Takamine, who placed Taka-Diastase at the disposal of the profession.

Morell Mackenzie was wont to place great faith in a combination of asafœtida and valerianate of zinc as a tonic, nervine, palliative treatment, but I must acknowledge to having never seen any other result accruing save, as in Mark Twain's classic case, securing to the patient the "odor of a turkey buzzard." To the same end, and also with a view of producing an alterative effect, Doctor Chas. Blackley recommends iodide of potassium with corrosive sublimate, which has been tried as a forlorn hope by many, with no better effect than a vile taste in the mouth. Arsenic, iodine, quinine, atropine, the bromides, *grindelia robusta*, the synthetics, and "the Lord knows what" beside—pretty nearly everything in the materia medica, in fact—have been exploited and tried, only to mete out disappointment. However, tonics and alteratives are often valuable adjuncts, and so too are saline laxatives, and the "hay" fever-ridden unfortunate will oftentimes obtain decided assistance from the use of Hunyadi Janos diluted with pure water, and drank hot immediately upon rising, in connection with local applications. Such narcotics as belladonna, stramonium, opium, etc., singly or in combination, are much lauded, and often do give relief—partial, at least—while one is under their immediate influence, but the dangers and drawbacks are such that the malady is often a preferable choice.

Local applications are, as a rule, somewhat more successful as palliatives. Preparations of witch hazel, anthoxanthum, and other drugs of homœopathic origin, selected in consonance with the belief in similars and specific dynamic action, have been widely puffed and advertised by dealers and manufacturers, with all the zeal of that philanthropy which has for its incentive the getting of money at all hazards and regardless of truth; but all are next to useless unless combined with strong *Faith Cure*, very painful if employed undiluted, and wholly valueless when mixed with water. Muriate of quinine taken internally is sometimes of benefit, especially if combined with euonymin, from its effect upon the secretions of the economy at large; but when employed in a snuff or an ointment, the cinchona salts one and all (in my experience, at least) appear to aggravate the trouble. Chloroform, or spirits of chloroform, is the sheet anchor of many of my acquaintances, and causes much mirth among ribald friends when the unfortunates copiously besprinkle their pocket-handkerchiefs from a bottle constantly carried in the pocket. Were there no other remedy, this would be a great boon, though many unpleasantnesses are connected therewith, notably bad effects upon the nervous system. A solution of menthol is usually as efficacious, and greatly to be preferred.

Iodine, as an inhalant, affords some slight relief in many cases, but not nearly so much as a bottle of strong smelling-salts made with bicarbonate of potassium and glacial acetic acid, to which a few drops of Euthymol are often a decided addition. A good menthol or other snuff with many people cuts short the paroxysm at once, but must be as *strong* as it can be made. I would suggest iodide of ethyl also, as a decided means of relief for those sufferers who, like myself, bear iodides well; and saturation of the economy by means of sodium iodide I personally find decidedly palliative.

Cubeb cigarettes are also very comforting; indeed, if one be smoked in a small room and the doors and windows kept close, tolerably complete immunity for the time is assured; but one cannot be caged in this way during the hot days of August, and the remedy thus may be more unbearable than the disease.

Arsenical preparations, both locally and internally, have been widely vaunted, but I can only say that none, so far as personal experience goes, have ever seemed to be attended with any influence, though I doubt not that Fowler's, Pearson's, or Donovan's solution, taken thrice daily, *after* meals, in as large doses as can be borne without nausea, may oftentimes prove a valuable adjunct to local remedies—especially the Donovan solution,—Hunyadi-Janos being also taken, hot, every morning on rising.

Doctor Carl Genth* insists that almost complete immunity may be had by bathing the mucous membrane of the eyes with a solution of corrosive sublimate in the strength of 1 in 3000, and by employing a like solution as a douche and gargle. My personal experience does not in the least corroborate this, and a better preparation for the same purposes is a saturated solution of borax in camphor- or chloroform-water, which may also be carried in the pocket and snuffed up the nose: its soothing effect upon the mucous membrane is frequently almost magical. On theoretical grounds, bicarbonate of soda in simple solution, employed in the same way, has been suggested by Doctor Newton, but the "proof of the pudding" evidences it is not nearly so useful as the biborate (borax), or even camphor-water alone.

Still another remedy that is more or less useful is a solution of hydrogen dioxide—the "golden hair dye" of Parisian *nymphs du pave* and their imitators,—but this should always be freshly or extemporaneously prepared, because it is extremely liable to continuous decomposition. The so-called fifteen-volume solutions in market are deceptive and unreliable, but the eleven-volume solution of Squibb is eminently satisfactory if not more than thirty days old: it is preferably had as demanded from the solution materials furnished by Squibb. In any event, also, it should be employed with extreme caution, since if it comes in contact with the hirsute adornments of the face the latter acquire an intense yellow hue—and a dark-browed, vindictive man, six feet in stockings, wearing a canary-bird moustache,

* *British Medical Journal*, June, 1888.

is an object lesson by no means pleasant of contemplation for a small-sized medical man of pacific or timid tendencies. A ten- or eleven-volume solution may be used of full strength, or diluted with water as occasion may demand—depending upon the sensitiveness of the mucous membrane in the individual, and if sprayed gently through the nasal canals will cause the patient to snort and blow the froth from his nostrils, expelling the dissolved mucus, when the application should be repeated again and again in the same manner until the nasal membrane is thoroughly cleansed. Next a spray of two-per-cent. solution of cocaine, or of menthol in suitable menstruum, may be employed for the purpose of temporarily depleting the swollen capillary vessels of blood, when the entire irritated surface should be touched by means of an applicator (a brass annealed wire bent to an angle of 45°) wound with absorbent cotton dipped in a mixture of hydrastis and Euthymol, diluted with three times its volume of *pure* glycerin. This is by far the best treatment I have found—except, perhaps, that indicated at the conclusion of this paper—and is in many instances successful in wholly relieving the patient of his malady after three or four applications. The first two or three times it should be employed by a physician familiar with the use of the nasal speculum and rhinoscope, in order that every portion of the throat and nose may receive the application. Meantime the borax-camphor-water should be employed for frequent washings of the eyes by means of an eye-bath; likewise smoked glass “goggles” will be found of great aid and benefit.

Tobacco-smoking pushed to the point of nausea, and the use of strong, clear, black coffee, are remedies oftentimes equally efficacious, especially for those who are not accustomed to them, but both are apt to fail as soon as one becomes in the least habituated to their use.

The first and foremost of palliatives, however, is cocaine muriate. I first employed this remedy eight or ten years ago, but was led to abandon it, partly because its effects appeared to be so extremely transient, and partly because of the untoward train of symptoms that followed in its wake. Subse-

quently I had reason to believe the fault lay with the drug, and more recently have returned to it again, using exclusively that prepared by Parke, Davis & Co., which apparently exercises no deleterious effect when employed reasonably and in moderation. Cocaine is a complex alkaloid, and Messrs. Parke, Davis & Co. removed from their preparation the *iso-atropyl* cocaine, the constituent that is most dangerous to the heart. Only those who have personally tried different preparations can justly estimate the immense difference that exists between a cocaine deprived of its chief cardiac poison and the article commonly supplied by pharmacists. My latest experience is, briefly, that, so far as the effects upon the nose and eyes are concerned, the action of the drug is almost perfect and will enable the sufferer to pursue ordinary avocations in comfort. A last year's patient wrote me:

With the assistance of a small bottle of cocaine solution and Semple's inhaler, and armed with a pair of smoked goggles, I have been able this summer to do what I have never succeeded in doing before—enjoy regular bicycle runs without any inconvenience worth speaking of. Without the cocaine this would have been a physical impossibility for me, as, apart from the constant sneezing, the eyes became, when not under the influence of cocaine, and even when protected by large glasses, so swollen and suffused by the rapid movement through the air and dust as to render me almost blind.

Mr. John Watson, of Westminster Hospital, London, who suffered to such a degree during the summer months that any form of labor, physical or mental, was impossible, and who only experienced relief, strange to say, in the atmosphere of the theatre, derived great benefit from tablets of cocaine which he introduced into each nostril, pushing them well up with the tip of the little finger. Undoubtedly, Parke, Davis & Co.'s tablets intended for the hypodermatic syringe would be equally effective.

Sir Andrew Clark records his preference for cocaine bougies made of gelatin and glycerin, each containing one-fourth grain of the muriate salt; and also for a mixture of glycerin and carbolic acid, each eight drachms, with quinine muriate one drachm, and $\frac{1}{800}$ part of corrosive sublimate, the whole mixed by the aid of heat and applied on a mop to the inflamed and irritated nasal tissues. The

effect of the latter, he says, is "sometimes *nil*, sometimes gives relief for half an hour, sometimes for a whole day, and sometimes for the entire season."—About half his patients were relieved for the season, and four were apparently cured. He also advises in connection with the foregoing the internal administration of alkalies and arsenic. The experience of one patient with this treatment is perhaps worthy of record. He writes characteristically:

Well, I have tried the mop mixture, and, as the chemist said who made it up, "it is a powerful compound." The first brushful on each application is very irritating to the nose, but, strange to say, the succeeding brushing in the same nostril is not felt, and one imagines all is going to be "jam." But it isn't. I used it on going to bed, and it kept me awake half the night applying the "kerchief continual," like Androcles and the Lion at the Wax Works. Also it was very fiery. Nevertheless, as with mixture before, I have no doubt it is a "blessed cure." I used it four alternate nights—24th to 30th—during which time I was tormented more or less—less on the first—so I thought I would give it an extra day's grace. This was Sunday, the 3d, when I spent the whole of the afternoon in the broiling sun of one of the hottest days we have had this year. But I felt no ill-effects, and this was an exceedingly severe test. A fortnight previously, on a similar day, the sun brought out a frightful attack, and I could scarcely see where I was walking. This last week I have felt very little indeed of it—got among some straw and dust Friday, that set me sneezing, but this soon passed away, and I think it unnecessary to mop any more. Next year, if I am a victim, I will start this mopping business on the first symptom of attack. I had given this to the 25th to exhaust itself, but now (the 11th) it appears almost done.

The nasal tablets of Doctor Carl Seiler—each composed of sodium chloride five grains, menthol, thymol and eucalyptus oil each three-fiftieths of a grain, sodium borate three grains, and wintergreen oil three-hundredths of a minim—are also frequently quite effective in staving off or mitigating a purely catarrhal attack; but they are of little use in the asthmatic form.

As before intimated, in my hands cocaine dissolved in distilled water (two-per-cent. solution) succeeds best, though the strength may be required to be increased as high as four or five per cent. toward the end of the season. For general use, four or five drops may be poured into the palm of the hand

and snuffed up into the nostrils, the head being thrown slightly backward and rotated from side to side, which will cause the fluid to practically reach all parts of the cavity. Of course, some spray apparatus affords material advantage, and for home use Semple's inhaler—which is more of a vaporizer than a spray—is much more convenient and certain. At the same time, by moistening the tip of the little finger in the cocaine solution, a drop or two may be introduced into the inner canthus of the eye with manifest relief to the "needles and pins" sensation. For the first few weeks of the season, by this method perfect immunity even in severe cases may be had for two or three hours; then, as the effect of the remedy wears off, it should be reapplied.

If cocaine had only this local effect, there would be little more to say than "Here is a palliative which for all practical purposes is perfect." But, unfortunately, in many instances there is another side to the picture, inasmuch as the drug is a powerful nerve-stimulant—it must be understood I am not now referring to the untoward effects induced by a single dose owing to the idiosyncrasies of an individual, but to the results accruing to continued use.

During the first two days the effect is ordinarily delightful; within a minute or two after absorption, all sensations of bodily or mental fatigue are removed, producing apparently a most pleasurable capacity for work; nevertheless it will be found impossible to perform any act that requires great concentration or mental effort—the mind wavers, becomes uncertain, and suddenly the "hay" paroxysm unexpectedly asserts itself; meantime there is very little appreciable reaction. After a short time conditions change. The drug acts less satisfactorily, requiring stronger and more frequent application, coupled with great reaction—if one has an excess of work the prostration incident to the reaction is very severe; the appetite is decreased, sleeplessness induced, the heart's action rapid and unsatisfactory, and the whole nervous system brought into a highly strung, over-wrought condition, often resulting in a continual craving for alcoholics—indeed, the use of alcohol is made complementary to the cocaine. This is not in the least an overdrawn picture, and so strongly has it been impressed upon Doc-

tor Bertram Windle, of Queen's College, Birmingham—himself an intense sufferer from "hay" fever—that he recently declared himself in the following words before the Birmingham and Midland Branch of the British Medical Association:

In spite of the great annoyance and suffering produced by the malady, and the relief afforded, I am very doubtful whether I shall venture to run the risk of using cocaine another season. I can readily understand from my own experience what is meant by "cocaine habit," and I lay my views before the brethren in the profession as a warning against the rash use of the drug. I should say that the lesson I have learned is, that whilst cocaine as a remedy affords palliation, perfect for all practical purposes, it is a drug the use of which is accompanied by so many collateral disadvantages as to make it very doubtful whether its continued exhibition during five or six weeks is a line of treatment which is safe or justifiable to enter upon.

I will add as part of my own professional experience the fact that I am familiar with no less than three cases where cocaine has wrought sad havoc as the result of being employed for the relief of this distressing malady. Two are cocaine *habitués* and complete physical wrecks; the other, a patient of advanced age, is mentally incompetent, and has developed an inordinate appetite for narcotics and alcohol.

I had intended to ignore the synthetic analgesics entirely, but on second consideration believe it is better to state the simple truth concerning them. Like chloral and other remedies, they, by reason of action through the central nervous system, have a decided soothing or anæsthetic effect upon the mucous membranes of the body when taken internally in large doses, but they are at best unsafe remedies and only too frequently induce most profound and dangerous collapse owing to interference with the heart's action.

There are two remedies, however, that may often be employed to replace cocaine, and in many instances most successfully—I refer to brucine and menthol. The former often induces all the soothing effect that obtains to the more dangerous alkaloids, while the latter may be employed to continue it. The brucine may be dissolved in camphor-water, making a five-per-cent. solution; the menthol may be used as strong as can be borne, or as

required to meet the indications of the individual, and in such form as appears most appropriate—snuff, solution, spray, tablet, bougies, etc. Both are fairly safe and in no way tend to habituation; and, as aids thereto, I am accustomed to advise the free use of saline cathartics with an abundance of water; also quinine muriate and euonymin, with perhaps hydrastis; and a simple but liberal diet, with but very moderate indulgence in alcohol. Most important of all is freedom from mental worry—this for those who cannot place themselves outside of the "hay"-fever zone. That paroxysms may be repressed by mental effort, on occasion, is not to be doubted, and with many immediate amelioration is had by retirement to a dark room.

Again, those cases in which there is decided swelling and thickening of the nasal tissues are often effectually treated by solutions of nitrate of silver, by touching with glacial acetic acid, or by actual cautery—the galvano-cautery heated to cherry redness. A still milder measure, one practically painless, is that recommended by Doctor W. H. Daly, of Pittsburg, which consists in the local abstraction of blood from the swollen tissues by means of a small fine knife similar to that employed for incising the cornea in the extraction of cataract. I have had no personal experience with this, but it certainly commends itself, as does any method that will permit of restored free nasal respiration, and reduction of sensibility in the hyper-sensitive areas of the parts; indeed, I am inclined to believe that free application to the sensitive area of the inferior turbinated bones and posterior portion of the nasal septum will permanently relieve "hay" fever, from the fact that one patient who suffered thus before the growth of polypi was entirely cured by the subsequent removal of these growths, and another obtained equal immunity by an injury that caused extensive ulceration and sloughing of the posterior border of the nasal septum. Probably also, in many instances, the daily application of Sir Andrew Clark's carbolic-sublimate mixture for some days prior to the onslaught of the malady will prove effective for that season, or so nearly so that merely a mild menthol spray, employed after a thorough douching, will be entirely satisfactory; at the same

time the mucous membrane of the inner corner of the eyes should be carefully washed every morning with soft water, and thoroughly saturated afterwards with a mild solution of corrosive sublimate (1 to 3000), or borax in camphor-water. Where the disease affects the ear also, the Eustachian tube and middle ear may be inflated by means of Politzer's inflation apparatus, with chloric ether or spirit of chloroform on cotton in the vaporizing bulb thereof. By such measures, one may confidently expect relief consistent with tolerable comfort, and sufficient to permit attendance to ordinary daily occupation, and above all relief from that peculiar feeling of aprosexia, or mental lassitude, that constitutes inability to fix the attention upon any one subject, and that is so constantly a concomitant of this malady.

Toronto, Ontario.

PALLIATIVE TREATMENT OF INGUINAL HERNIA.

BY BENJAMIN FRANKSON, M.D.

An inguinal hernia, upon emerging from the peritoneum, whether in the form of an omentocele or an enterocele, passes down the spermatic canal along with the spermatic cord to the scrotum (or labia majora in the female). In its course it may pass either externally or internally to the epigastric artery, and hence, according to the course it takes, is designated "external or oblique," or "internal or direct." The former variety predominates to great extent, but in either case the hernia may, in the male at least, assume enormous proportions. In extreme cases a large proportion of the abdominal contents may thus descend into the scrotum, forming a pouch which perhaps will extend as low as the knees, thereby causing a vast amount of inconvenience. Of course, either variety may exist in varying degrees, causing it to be denominated "complete" and "incomplete," but as the treatment demanded in any of its stages is practically the same, all may be included under the general term "inguinal hernia."

It is the duty of the physician to satisfy himself beyond doubt that he has a hernia to deal with, and also whether it is associated with hydrocele, sarcocele, varicocele, bubo,

etc. Before resorting to surgical procedures he should thoroughly consider the patient's age, annoyances, occupation, and the probability of success.

I shall confine myself exclusively to the palliative mode of treatment, and assume that, from some cause or other, a surgical procedure is *contra-indicated*.

Any individual, regardless of age, who has a hernia that is reducible, should wear a properly fitting truss, and in applying this device it is essential to understand thoroughly the parts involved: the spermatic cord suspending the testicle is a delicate carrier of blood, nerve and lymph supply to that organ. There is an innumerable variety of trusses, but they may for the most part be classed under two heads: the web or elastic truss, which is a pad calculated to fit over the seat of the hernia, held in place by means of a belt around the body or pelvis and a perineal band; and the spring truss, which in its most common form is a steel band encircling the body, with a pad or bulb attached by means of ball-and-socket joint to one end, intended to exert pressure on the hernial site.

The physician should be especially careful to select a suitable truss and see to its proper adjustment in each individual case.—Most of the trusses in market are the products of individuals of an "inventive turn of mind," but utterly ignorant of the anatomical and fundamental principles essential to the success of such a contrivance.

In applying a truss, the chief object to be kept in view is not simply to press the rupture out of sight. Frequently pressure is applied directly on the external abdominal ring, leaving the gut lodged in the inguinal canal above, or—as is a quite common occurrence and even more deleterious—the pad is placed so it presses upon the pubic bone, pinching the delicate spermatic cord between two unyielding surfaces, inducing a great deal of suffering, perhaps even causing atrophy of the testicle. The aim should be to close the mouth of the hernial sac and destroy its communication with the abdomen; and this cannot be attained by applying the truss in the usual manner upon the external ring, or on the os pubis. To be sure, the external ring may become closed through wearing a truss that presses upon it, but then the neck of the

sac is left to receive the wedge-like dilating force of the intestine, and the supposed cure soon fails. If a cure is to be sought through the use of a truss, it must first of all prevent the peritoneal pouch from protruding into the internal ring, thereby permitting the internal orifice to close, when the chances are that the peritoneal sac, emptied of its abdominal contents, will contract and disappear. If these conditions can be maintained, which by the proper application of a suitable truss is not a difficult matter, the inguinal canal becomes smaller, and the connective-tissue structures in and about it strengthened.

In diagnosing hernia, the first pathognomonic indication to be noted is the pulsation or impulse on coughing, straining, etc. By palpation, if the protruding mass is composed entirely of omentum, it will be found smooth to the touch or perhaps slightly corrugated in the folds, and if reducible it will slip back noiselessly into the abdomen when pressure is applied. If composed of intestine it will have a more elastic and doughy feel, and sometimes by close attention the loop may be defined, which slips back with a sudden gurgling sound when reduced.

For the reduction of a hernia, the patient should be laid horizontally, upon his back, and the tumor, if large, grasped with the right hand, sufficient pressure being exerted upon it, while with the left hand a kneading motion is maintained at or near the point of emergence from the body, thus working the intestines through the opening back into their proper place.

It is also of paramount importance to see that the hernia is all reduced before applying the truss, for pressure applied on the protruding gut is alike painful and dangerous—gangrene frequently follows. When the reduction is completed, further examination of the external ring can be made by invaginating the finger in the scrotum. Now when satisfied as to the existing condition of the hernia, endeavor to locate the internal abdominal ring, which can be found approximately at a point midway between the spine of the pubis and the anterior superior spinous process of the ilium. This done, place the finger-tips of one hand over the region between the external and internal abdominal rings, and, with the other hand behind the

patient, exert a steady and gentle pressure—have him also, if need be, stand up, and then instruct him how to cough or otherwise exert pressure on the abdominal viscera. This will give an idea of the amount of pressure required to retain the rupture.

To measure for a truss, note carefully the size of the aperture and the kind of hernia—whether single or double. Measure with a tape-line the circumference of the body one inch below the crest of the ilium,—the number of inches is the number of truss required. As much technical skill and thorough knowledge of the parts is required to properly fit a truss as to operate for herniotomy, though the results may not be so soon apparent; and just as certainly will evil effects follow error.

Regarding the wearing of the truss at night: Here one must be governed by the conditions of the individual case. A hernia in some instances tends to come down even in the recumbent position, and this is more apt to be the case in the corpulent, when a night truss may be indicated, which need not necessarily be as strong as the day truss; but, as a rule, in the majority of cases it is best to remove the truss after retiring at night, and replace it in the morning before rising.

The constant pressure of the pad may give rise to some soreness and irritation along the inguinal canal; this, if the hernia be kept well back in the abdominal cavity, is not objectionable, as a slight irritation of the walls of the canal may stimulate it, in a way, to contraction, and eventually cure the patient. As a rule, at the start the hernia requires greater pressure to retain it than is necessary after awhile when the viscera become accustomed again to proper position.

There is no object in keeping the skin sore and irritated, and to prevent this various pads and bulbs have been devised—wood, vulcanite, india rubber, etc.; also water-bags, sand-bags, inflated rubber bulbs—all have their advocates. Where the irritation of the skin is great it is good practice to place under the pad of the truss a smooth piece of lint, silk, or absorbent cotton.

By conscientiously and carefully noting every step, and studying closely the physical and anatomical principles involved, success will usually result.

Gladstone, Michigan.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

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DETROIT, MICH., SEPTEMBER 10th, 1896.

Editorial.

HAY FEVER.

This is the season of that most exasperating malady which begins to make its presence felt somewhere between the 15th and 20th of August, and lasts from four to six weeks—until the advent of frost—and is sometimes denominated autumnal or periodic catarrh, and vaso-motor coryza. It is an affection which at times baffles the very best medical skill; indeed, in the majority of instances nothing beyond palliation of the severest symptoms can be hoped for from the resources of the medical man. Further, what will in a measure prove remedial in one case is very apt to lose its efficacy when prescribed for another. Thus it is seen routine treatment is impossible. The greatest drawback to successful treatment of "hay fever" is lack of knowledge of cause. It is well known certain conditions and surroundings aggravate, and these of course should be looked after as soon as possible, and at the same time digestion, excretion, etc., regulated.

A recent writer in the *Medical Summary* offers a series of prescriptions claimed to be more or less efficacious, which we here reproduce for the benefit of others:

A pill containing four grains each of acetanilid and monobromated camphor and half a grain of extract belladonna, given three times daily:

A teaspoonful of syrup hydriodic acid in water, every four hours:

A pill composed of one grain each of valerianates of zinc, iron, and quinine, three to

six times a day—dose may be doubled if required:

Twenty grains sodium bromide, two and a half minims Fowler's solution, five minims tincture belladonna, in syrup and water, three times daily.

The same author suggests a snuff composed of four drachms of bismuth subnitrate and ten grains cocaine muriate; or four grains each of menthol and eucalyptol in some menstruum suitable for use by the atomizer, and employed every two or three hours. Another suggestion is to paint the nasal passages with a four-per-cent. solution of cocaine.

There are certain objections to the foregoing, although they may be of more or less utility. The formula calling for Fowler's solution, sodium bromide and belladonna is manifestly erroneous, since it would be impossible to satisfactorily dissolve the bromide in the small amount of menstruum called for. Here we would make the suggestion that these drugs be imbibed in from one-half to three-fourths of a tumbler of water.

Bismuth subnitrate is entirely too heavy for a snuff, and there are a multitude of drugs which would better answer the purpose to carry cocaine muriate; if bismuth is desired, the subcarbonate would be better.

It is somewhat awkward applying cocaine solution to the nasal passages by means of a camel-hair pencil: A two-per-cent. solution is equally effective when employed by the aid of a hand atomizer or nebulizer. The use of cocaine, however, is always objectionable, and should be avoided as far as possible—in other words, it is only permissible in the direst necessity and when all other agents have failed, for many cases of cocaine habit are directly traceable to the use of this drug for the relief of some catarrhal malady.

The proposition to use belladonna in each and every prescription is by no means a bad one, but the intervals are too great. Either atropine or belladonna administered in minute doses every half-hour or every hour will often give comfort, even when local applications are of little avail.

In this connection we may call attention to a very complete paper on this subject, in our Original columns; and we may also add the paper on asthma, in THE MEDICAL AGE of

August 25th, from the pen of Doctor Ephraim Cutter, acquires new interest in this connection, as it is in a measure complementary to the former—it perhaps throws new light upon a subject hitherto most obscure.

TUBERCULOSIS.

In the *New York Medical Journal* Doctors Stovall and Twitty, of Columbia, Alabama, very earnestly commend the use of inhalations of iodine dissolved in carbon disulphide for the treatment of tubercular disease of the lungs. The claim is made that as the disulphide is very volatile at ordinary temperatures, it is an ideal vehicle for carrying iodine to all parts of the laryngeal and lung areas—that, in fact, with deep inspiration the remote recesses and apical caseations are reached. “The good effects are manifested almost immediately—during the first day’s trial—and the night cough is thereby improved, expectoration lessened in quantity and better in quality.” Though the sulphide and carbon compound is generally held to be poisonous, these gentlemen declare “they have watched very closely for any untoward symptoms attributable to its inhalation,” but have as yet “failed to note any objection to its use under proper precaution and direction from a physician.”

One drachm of iodine to the ounce of disulphide is recommended, but the caution is given that no inhalers should be employed into the composition of which rubber enters, since the latter is acted upon by the carbon.

A cheap, convenient instrument may be improvised by using a small test tube with a sponge in the bottom saturated with the liquid; it will be necessary to replace the sponge frequently because of the corrosive action of the medicine. For lung and laryngeal treatment the inhalation is best made through the mouth, with the instrument pushed far back approximating the opening of the larynx. The frequency with which the medicament may be used varies according to individual conditions and effects—say an average of every two hours during the day.

As the disulphide has a most unpleasant odor that is almost certain to be objectionable to the majority of patients. Doctors Stovall and Twitty recommend such additions and modifications as may be justified by the individual case, though they add that experi-

ments to this end, so far as they personally are concerned, have not yielded any material results. Menthol is considered the most harmless addition, and the one which is perhaps most simple in application.

Considering the claims made and the character of the remedy, the profession would certainly be justified in giving it careful consideration.

OF INTEREST TO BACTERIOLOGISTS.

The extension of the use of pure yeasts has of late, not unnaturally, caused a good deal of attention to be bestowed upon the most efficient methods for their successful preservation and transmission. Pure yeast cultures can be purchased much as any other article of commerce at the present day, but a great deal depends upon how these so-called stock yeasts are to be stored. *Nature* insists that experience has shown that, in general, solutions of cane-sugar answer far better for this purpose than wort-gelatin or infusions of wort.

In saccharine solutions, yeasts have been preserved in perfect condition for as long as fourteen years. There are, however, exceptions to this rule, for Hansen reports that the *Saccharomyces Ludwigii* dies off in from two to three years when kept in saccharine solution; whilst Doctor Holm has quite recently described a particular variety of yeast obtained from some Jamaica molasses, which could not be persuaded to exist beyond twelve months in such solutions, whilst in wort-infusions it was still alive after the lapse of two and a half years. With these exceptions, however, saccharine solutions answer the purpose perfectly; but it is of great importance that vessels containing these stock yeasts, whilst occupying very little space, should obviate as far as possible the evaporation of the contents. This evaporation has caused no little trouble in the past; but, thanks to an ingenious device of Jorgensen's, it appears to be happily overcome. The apparatus employed has been recently described by Doctor Holm, to whom the conduct of the experiments involved in determining this point were entrusted, and his paper appears in the *Centralblatt für Bakteriologie*. Not only may the special flasks described be used for liquids, but they have been found also of great service in preserving gelatin cultures from drying up, and Doctor Holm tells us that, even six months after its preparation, the gelatin in these flasks still retained its soft consistency, and was not in this respect distinguishable from freshly prepared gelatin. This should overcome a difficulty with which bacteriologists are frequently troubled.

A NEW USE FOR TAKA-DIASTASE.

Doctor J. K. West, of Shannon, Mississippi, has discovered a valuable use for Taka-Diastase in veterinary medicine. He writes the editor as follows:

I had a horse very ill with colic—swelled up almost ready to burst, owing to over-feeding of corn. Having heard medical men recommend Taka-Diastase as a digestant of starch foods, I gave the animal twenty grains in a half-pint of cold water, when, to my surprise, he became easy in a very few minutes, and in an hour the swelling and bloat had entirely disappeared. At the time the remedy was administered I did not believe the animal would survive twenty minutes.

If the results apparently accruing to the administration of this digestant were not a mere coincidence, the information conveyed is very valuable. There is a malady among horses, oftentimes diagnosed as "colic," which veterinarians term acute indigestion, in which it would seem—theoretically at least—that Taka-Diastase would be of incalculable value.

The so-called "colic" of equines in reality covers a number of different conditions. Where the "colic" is due to volvulus, little benefit can be expected from Taka-Diastase, and here the subcutaneous use of physostigmine is generally considered specific; where physostigmine is not available, personal experience warrants a suggestion to employ hydrate of chloral in half-ounce to ounce doses.

FATAL EXPERIMENTATION.

It will be learned with regret that Doctor Arthur Stradling, of Ceylon, well known for his experiments regarding serpent poison, recently fell a victim to his scientific researches. He had set out to discover, if possible, an antidote for the poisonous serpents of the Far East—a real will-o'-the-wisp, since examination into the histological changes produced by venom would have shown him that an antidote, in the true acceptance of the term, is impossible unless man can also bestow new life, or, in other words, rival the powers of the Creator. He imagined himself, as the result of weak inoculations, poison-proof, and discovered his error only when it was too late. While handling one of the deadliest of poisonous ser-

pents peculiar to Ceylon—probably the *Daboii Russelli* or tic paloonga—the reptile bit him, and he succumbed in the course of a few hours.

EPILEPSY AND THE BROMIDES.

The bromides, unfortunately, have been widely heralded as specifics for epilepsy; yet no claim can be farther from the truth. They may suppress epileptic attacks, but only for the period during which they are administered; they are in no sense remedial.

Again, a great deal of the trouble accruing to the administration of this class of agents is due to the selection of a poor and cheap salt. Bromides of potassium, of ammonium, of lithium, etc., are unpalatable and in the main unsatisfactory, the stomach quickly rebelling against their administration. Sodium bromide, on the contrary, if dissolved in water, affords a palatable and refreshing draught; it may be employed for a long time in maximum doses without untoward result; further, it carries a larger percentage of bromine than the other salts, that of lithium excepted, and here the difference is infinitesimal.

EDITORIAL NOTES.

A Needed Step.—

In 1885, Connecticut passed a law making it a felony for any epileptic, imbecile or feeble-minded woman under forty-five years of age to marry or cohabit with a man; or for an epileptic, imbecile or feeble-minded man to marry or cohabit with a woman under forty-five years of age. The penalty is imprisonment for not less than three years; and any person who shall assist or in any manner countenance this felony will be liable to a fine of not less than \$1000 or imprisonment for one year, or both. Thus, the healthy person marrying or cohabiting with an epileptic, etc., is made *particeps criminis*. It would be well for all the States to follow Connecticut, and also to throw some similar restraint around the syphilitic.

Sleep After Eating.—

Schule has analyzed the contents of the stomachs of two normal subjects a few hours

after meals, sometimes followed by sleep and sometimes not; and he finds that sleep has for its constant effect the weakening of the stomach's motility, though at the same time there is an increase of acidity of the gastric juice. On the other hand, simple repose in the horizontal position stimulates the motive function of the viscus, but does not increase the acidity of the gastric fluid.

Thus the conclusion is reached that, while one would find it advantageous to stretch himself out for a rest in a horizontal position after a hearty meal, he should resist the wooing of sleep, especially if possessed of a dilated stomach, or if its juices are hyperacid.

Medicine and Science in Canada for 1897.—

The Dominion is next year to be the meeting-ground of both the British Medical and the British (Science) Associations. At the annual meeting of the former in Carlisle, it was decided to accept the invitation to Montreal for the end of August or beginning of September, 1897; at the same time the British Association is booked to meet at Toronto August 18th. So it will be possible for the members of each to attend both if such is their wish.

Still another Canadian attraction for the coming year will be the British Industrial Exposition at Montreal.

Antiquity of Man.—

The contemporaneity of man with the gigantic fossil sloth *Megalonyx* appears to be now established, Mr. H. C. Mercer having recently obtained distinct evidence on this point in the Big Bone Cave, Van Buren County, Tennessee. The full report, which will be published by the Archæological Department of the University of Pennsylvania, will be awaited with interest, as it should provide data towards the solution of the problem of the length of time man has existed on the American Continent.

Novel Method of Disposing of Neuromata.—

It has been found that neuromata after amputation almost always appear in scar tissue, and are especially fixed against the sawn end of the bone. Senn endeavors to obviate this by amputating the nerve high up in the tissue, and then cutting a V-shaped wedge

out of the distal end, uniting the two flaps with suture so that none of the interior of the nerve-trunk is exposed,—all nerve tissue is covered in by the endothelial sheath.

Cryostase.—

This is the name of a new substance recently discovered which has the curious property of solidifying under the influence of heat, and again becoming liquid at temperatures below the freezing-point. Full details of the composition are lacking, but it is said to be made by mixing equal parts of phenol, camphor, and saponin, to which is added a rather small quantity of turpentine.

Attempt to Polarize Roentgen Rays.—

Doctor John Macintire has spent considerable time in attempts to polarize Roentgen's rays, but in vain. He, however, is by no means discouraged, and proposes to continue his investigations. He has conclusively proven, apparently, that the Roentgen rays cannot be polarized by means of tourmalines, as claimed by certain Continental observers.

Influenza.—

Doctor Brodnax recommends infusion of boneset in the treatment of *la grippe*, inasmuch as it reduces temperature, acts as a sedative and alterative, and appears to be grateful to the patients.

We can endorse the claim as made.

A Step Forward.—

The Supreme Court of Rhode Island has handed down a decision that an itinerant doctor cannot practice within the limits of the State. Such a measure will go a long way toward abolishing charlatanism.

Tit for Tat.—

Inasmuch as the New York Examining Board has refused to accept medical licenses issued by the Pennsylvania Medical Council, the latter has rescinded the rule accepting licenses from the Empire State.

Chorea.—

Doctor Dyce Duckworth insists that chorea is a form of rheumatism—*cerebral rheumatism*, in fact—a conclusion that is fairly well borne out by the evidence.

Items and News.

Requisites of a Physician.—

A doctor should know everything. If he doesn't, he should pretend that he does. If he doesn't adopt this plan, he will frequently "get left;" and if he does, he will also frequently "get left." Many doctors are very ignorant; but the people are more ignorant than the doctors.—And the ignorance of the people is the salvation of the doctors. People ask doctors all sorts of questions, and doctors give all sorts of replies. That is the right thing to do,—the trouble is in always making the reply fit the question. But this is a small matter; it is not necessary; it is not necessary for doctors always to speak the truth, neither is it possible. If doctors spoke only when they told the truth, there wouldn't be so much noise—there would be less talking. But doctors must talk; it will not do for a doctor to be silent, for a silent doctor is always viewed with suspicion. People think he knows something he won't tell, whereas, more than half the time, he doesn't know anything, and he is simply keeping quiet in order to lay plans to keep people from finding it out.—*Homœopathic Medical Recorder*.

Rapid Growth.—

In connection with M. Ragonneau's reported explanation of the "mango trick" of Indian native conjurers, it may be interesting to compare his results with Moggridge's observations on the harvesting ants of the Riviera. According to M. Ragonneau, the Indians sow the seed under experiment in earth which has been taken from an ant's nest, and the formic acid present causes it to germinate with extraordinary rapidity, and "grow up into a tree" before the astounded spectator. The French observer states that he has reproduced this experiment in every detail by sowing seeds in earth previously watered with a dilute solution of formic acid. On the other hand, Moggridge found that in seeds stored in the granaries of the Mediterranean ants the process of germination was indefinitely delayed. That their vitality was not destroyed was proved by removing and planting them in fresh earth, when they grew immediately. That ants should be capable of exerting such opposite influences on the growth of seeds is remarkable.—*Nature*.

A Schoolboy's Physiology.—

The following composition by a twelve-year-old schoolboy was the cause of his being recommended to take a special course in

physiology the next term. The theme given him was "Breath":

"Breath is made of air. We always breathe with our lungs, and sometimes with our livers, except at night, when our breath keeps life going through our noses while we are asleep. If it wasn't for our breath, we should die, whenever we slept. Boys that stay in a room all day should not breathe; they should wait till they get out of doors. For a lot of boys staying in a room make carbonic acid, and carbonic acid is more poisonous than mad dogs; though not just the same way. It does not bite; but that does not matter as long as it kills you."—*Bristol Medico-Chirurgical Journal*.

Fake Cures.—

In this age, when the operative mania prevails so extensively, and good old-fashioned medicine has, of necessity, taken a back seat, the desire for a record causes many a surgeon to forget that cure is not complete because the patient has been deposited alive in bed, and that statistical data are made up from ultimate cures and not on statements made before the patient has emerged from the influence of the anæsthetic. It is a brilliant thing to open the abdomen and in short order deposit in a dish a tumor nearly as large as the patient, but if the case dies or remains ever thereafter an invalid the justification for the operative procedure may fail entirely.—*American Medico-Surgical Bulletin*.

The Tuberculin Cattle Test.—

It has been declared that "if anything has been demonstrated to a mathematical certainty in experimental pathological medicine and anatomy, it is the fact that tuberculin is a sure test of masked or unrecognized tuberculosis in cattle."

This is the dogmatic, assertive side of the question. Practically, it is found the British Royal Commission on Tuberculosis, after a lengthy, careful and painstaking investigation, reported that the tuberculin test on cattle was untrustworthy.

There are some people in this world who would continue to assert that night was day if they stumbled at every step for want of light.—*Medical Brief*.

"Le et Les."—

A story is going the rounds of the French journals to the effect that a Chinaman, being hard pressed for money, sat down and cut off "*le et les*," thereby making himself a eunuch. He sold "*le et les*" for nine francs—or perhaps it would be more correct to say

that he pawned them, for of course they had no intrinsic value, but were taken in the belief that their original owner would eventually seek to redeem them in order to present himself in the next world "complete." It is said that as large a sum as \$3000 has been paid for the redemption of "*le et les*."—*New York Medical Journal*.

The Greenland Birch.—

The midget of the whole tree family is the Greenland birch. It is a perfect tree in every sense of that term, and lives its allotted number of years (from seventy-five to one hundred and thirty), just as other species of the great birch family do, although its height, under the most favorable conditions, seldom exceeds ten inches. Whole bluffs of the east and southeast coast of Greenland are covered with "thickets" of this diminutive species of woody plant, and in many places, where the soil is uncommonly poor and frozen from eight to ten months a year, a "forest" of these trees will flourish for half a century without growing to a height exceeding four inches.—*Littell's Living Age*.

An Ascitic's Lament.—

Audi, doctor, me clamantem,
Trista voce lamentantem!
Aqua horrida interna
Ventris plena est caverna!
Diaphragma, in thoracem
Aqua vi impressum, pacem
Rapiat jam pulmonem, omnes
Fere noctes sunt insomnes.
Nunquam autem tulit venter
Meus aquam-phy! libenter!
Ergo, doctor fac me salvum,
Aqua liberando alvum,
Ne sis Fabius Cunctator,
Veni Medicus Punctator.

—*Deutsche Medizinal Zeitung*.

An Original Communication.—

The following note was received by a Mississippi physician from one of his colored clientele:

dR

mi wif hav lost hur recompence to me & is given hur distutions to a nuther man & i wants you to sen me sum poders for to put in hur coffy to re-habilify hur desires for me agin.

your Truly

—*Memphis Medical Monthly*.

Hunting a Lost Ball.—

The Roentgen ray and the location of bullets brings to mind an old army story about a general officer, wounded in the fleshy part of the leg, where the surgeons made many incisions. At last, growing tired and worn

with pain, he asked if they were nearly through dressing his leg. "I am looking for the ball," said the operating surgeon. "Why the devil didn't you say so before?" roared the officer; "I have the ball in my pocket."—*Journal of the American Medical Association*.

A Cunning Device.—

A Liverpool physician makes a portable spirit lamp out of a metal thermometer-case, by simply fitting it with a few strands of lamp cotton and filling with spirits. Screw on the top and place a piece of rubber tubing over the joint, making it spirit-tight. It is good for sterilizing needles, and a suitable companion to Pavy's urinary test case and for other purposes.—*Medical Times*.

Centenarians.—

A census of centenarians recently taken in France showed 213 persons of a hundred years and over, 147 of whom were women. The oldest was a woman who subsequently died at 150 in a village of the Department of Haute Garonne. Nearly all belonged to the lower ranks of life.—*New York Medical Times*.

The Use of Drugs.—

"What drugs are most useful in general practice?" was recently answered by every member of Willesden Medical Society, and from the list the following are selected: Potassium iodide, Fowler's solution, tincture digitalis, solution of strychnine, calomel, and opium.—*The Lancet* (London).

Spider-web and Steel Thread.—

It is not generally known that, size for size, a thread of spider silk is decidedly tougher than a bar of steel. An ordinary thread will bear a weight of three grains. This is just about fifty per cent. stronger than a steel thread of the same thickness.

A Suggestive Advertisement.—

The following is a copy of an inscription ornamenting a hedge in Kent, England:

Notis. If any man's or woman's cows get into these here oats his or her tail will be cut off as the case may be.

Medical Study.—

Doctor Watson Cheyne declares that the "amount the medical student has to learn now-a-days is appalling."

The Obstetric Forceps.—

These are the offspring of the corset.—*Homœopathic Medical Recorder*.

Book Reviews.

A TREATISE ON SURGERY. In two volumes. Edited by Roswell Park, M.D. Volume I; cloth; 8vo; pp. 700. Price, \$4.50. Lea Brothers & Co., Philadelphia.

Chapters I, II, III, IV, V, VI, VII, VIII, IX, XII, XIII, XIV, XV, XVI, XXVI and XXXV are by the editor, and devoted respectively to "Hyperæmia," "Surgical Pathology of the Blood," "Inflammation," "Ulcers and Ulceration," "Gangrene," "Auto-infection," "Surgical Fevers and Septic Infections," "Surgical Diseases Common to Man and Animals," "Shock and Collapse," "Scurvy and Rickets," "Poisoning by Animals and Plants," "Acute Intoxications," and "Cysts and Tumors;" chapter X, dealing with "Syphilis," is by John A. Fordyce; chapter XI, "Gonorrhœa and its Sequelæ," is by William T. Belfield; chapters XVII, XVIII and XXVIII are devoted to "Control of Hæmorrhage," "Abstraction of Blood," "Paracentesis," "Counter Irritation," "Minor Surgery and Bandaging," and "Burns and Frost-Bites," by John Palmenter; chapter XIX, "Anæsthesia and Anæsthetics," is by Hobart A. Hare; chapter XX, "Surgical Diagnosis," by Chauncey P. Smith; chapter XXI, "Methodical Report of a Surgical Case," by Edmond Souchon; chapters XXII, XXIII, XXIV, and XXV, devoted to "Wounds," "Processes of Repair," and "Antiseptics and Asepsis," are by Charles B. Nancrede; chapter XXVII, "Surgical Diseases of the Skin," is by William A. Hardaway; chapter XXIX, "The Muscles, Tendons, and Tendon Sheaths, Bursæ and Fasciæ," by Herbert L. Burrell; chapter XXX, "Injury and Diseases of the Lymphatic Vessels and Nodes," by Frederic H. Gerrish; chapter XXXI, on "Surgical Diseases and Diseases of the Veins," by J. L. Holloway; chapter XXXII, "Surgical Diseases and Diseases of the Arteries," by Duncan Eve; chapters XXXIII and XXXIV, "Injuries and Diseases of the Joints and Joint Structures," and "Operations on Joints," are by Joseph Ransohoff; chapters XXXVI and XXXVII, dealing with "Fractures" and "Dislocations," are by Henry H. Mudd.

BIRDS IN THE BUSH. By Bradford Torrey. Cloth; 16mo; pp. 300. Price, \$1.25. Houghton, Mifflin & Co., Boston.

This is the eighth edition of one of the most interesting books upon bird life that has ever seen light. Mr. Torrey gives notes upon one hundred and twenty-five different species of birds observed in New England, and as a result of personal observation he has added wonderfully to our knowledge of the habits and peculiarities of our feathered friends. The first chapter deals particularly with birds commonly viewed on the Boston Common; the second with birds' songs, which are closely analyzed—Mr. Torrey is the first author to discover that the same species may vary its notes.

Under the caption of "Character in Feathers" the personality of the different species is discussed. The fourth chapter deals with birds as seen on the White Mountains. "Phyllida and Coridon" deals with wooing and food-supply, and particularly stamps Mr. Torrey as an unusually close observer. "Scraping Acquaintance" is the title of a chapter which especially teaches how to study the characteristics and habits of feathered life. The other chapters are taken up with "Minor Songsters;" "Winter Birds About Boston;" "A Bird Lover's April;" "Owl's Head (Lake Memphremagog, Me.) Holiday;" "A Month's Music."

There is not a dull line in the whole volume, and it will prove equally interesting to youth or adult. One matter especially notable is the denial of the assertion of the Duke of Argyle that "no bird can ever fly backwards." More than once Mr. Torrey has observed humming birds at their work who appear never to have heard the noble Scotchman's theory; "at any rate they very plainly did fly tail foremost, and that not only in dropping from a blossom, but even while backing out of a flower tube in an upward direction." Within a few days the Editor of THE MEDICAL AGE has several times been able to verify Mr. Torrey's statement.

TWENTIETH CENTURY PRACTICE. Edited by Thomas L. Stedman, M.D. Cloth; 8vo; pp. 667. William Wood & Co., New York.

Owing to unforeseen difficulties in issuing Volume VII, the publishers have found it necessary to issue Volume VIII out of its natural order. This deals with diseases of the respiratory organs. "Diseases of the Mouth" is by Johann Mikulicz, M.D., and Werner Kummel, of Breslau; "Diseases of the Esophagus," by Reginald H. Fitz, M.D., of Boston; "Diseases of the Stomach," by Max Einhorn, of New York; "Diseases of the Pancreas," by Hans Leo, M.D., Ph. D., of Bonn; "Diseases of the Peritoneum," by R. Farquhar Curtis, M.D., of New York; "Animal Parasites and the Diseases They Cause," by J. Ch. Huber, M.D., of Memmingen, Bavaria; "The Treatment of Diseases Caused by Animal Parasites," by James M. French, M.D., of Cincinnati.

This work continues to uphold the high standard which was set by its initial volume. We cannot too highly recommend this series to the practitioner who desires practical and reliable information in preference to abstruse theories. Each author is an authority in his own line.

DAME FORTUNE SMILED. By Willis Barnes. Paper; 12mo; pp. 336. Price, 50 cents. Arena Publishing Co., Boston.

This is a retrospect of the year 1900, and the publishers state it is a simple narrative "with no pretense of literary excellence," a statement which is well borne out. When tyros attempt to treat of medical subjects, they invariably make a failure

thereof. The author is evidently a worshipper of the German character, and the medical hero is neither "fish, flesh, fowl, or even good red herring," from a medical standpoint. It is such works as these which bring discredit upon the medical profession by ascribing to fictitious medicos utterly impossible characteristics and a scope of knowledge that fairly transcends that of the Creator.

MINOR SURGERY AND BANDAGING. By Henry R. Wharton, M.D. Cloth; 12mo; pp. 594. Price, \$3.00. Lea Brothers & Co., Philadelphia.

We had occasion to review this work most favorably in THE MEDICAL AGE of November 10th, 1893. Beyond the scope of the title, there is full delineation of operations such as intubation, ligation of arteries, and amputation. The need for such a volume is evidenced by the fact it has now reached its third edition. The illustrations are very superior and derived from photographs instead of drawings.

NOT WISELY BUT TOO WELL. By Rhoda Boughton. Paper; 16mo; pp. 274. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 241 of the Globe Library published by this house. A critical review is unnecessary where the author is so well known as in this case. The work deals with the love of a woman for a man whom she subsequently finds to be already married, and all the temptations and trials which beset her in an attempt to keep in the right path.

MANUAL OF OBSTETRICS. By W. A. Newman Dorland, A.M., M.D. Cloth; 12mo; pp. 760. Price, \$2.50. W. B. Saunders, Philadelphia.

The title of this volume sufficiently indicates its scope, and the author's name is a guarantee that it offers a degree of completeness rarely equaled. Not only is the text eminently suitable for the education of the student, but it is fairly exemplified by means of 170 illustrations, six of which are full-page colored plates.

A COMPEND OF GYNÆCOLOGY. By William H. Wells, M.D. Cloth; 16mo; pp. 261. Price, 80 cents. P. Blakiston, Son & Co., Philadelphia.

The title of this volume, which is one of Blakiston's Quiz Compend Series, sufficiently indicates its scope. It is prepared from current text-books devoted to this subject.

TWO OF A TRADE. By Martha McCullough Williams. Cloth; 12mo; pp. 206. Price, \$1.00. J. Selwin Tait & Sons, New York.

This is a very interesting little plot wherein a would-be author endeavors to get up an artificial sensation for "copy," and ends in securing a real one. The situations are oftentimes most amusing, and not infrequently pathetic.

DIET FOR THE SICK. By Miss E. Hibbard and Mrs. Emma A. Drant. Paper; 24mo; pp. 100. Price, 25 cents. Illustrated Medical Journal Co., Detroit.

This is the usual compilation of books of this class, and neither better or worse than the majority.

A PILGRIMAGE TO BEETHOVEN.

With the current issue of the *Open Court*, of Chicago, (No. 470) appears the initial chapter of a novelette by Richard Wagner, the great musical composer, which is said to be a sketch of great literary power and depth of thought, and likewise full of humor and varied artistic interest. This novel has never appeared in English before, and, as it could only be obtained in the expensive edition of Wagner's collective works, was never accessible even to the German public. The price of the *Open Court* is \$1.00; five cents per copy.

GRAY'S ANATOMY.

Lea Brothers & Co., of Philadelphia, announce a new edition of this well known text-book, to be issued during the present month, and in which such changes have been made as are necessary to represent the advances in anatomical knowledge and anatomical teaching. The sections on the Brain, Spinal Cord and Viscera have been entirely rewritten, and new matter and new engravings added.

LITTELL'S LIVING AGE. Price, 20 cents; \$6.00 per year. The Living Age Co., Boston.

The publishers of this old standard eclectic weekly, founded in 1844, have introduced several new and valuable features in their magazine. The most important of these is a Monthly Supplement, given without additional cost to the subscribers, which will contain readings from American magazines, from new books, and a list of the books of the month; also occasional translations of noteworthy articles from the French, German, Spanish and Italian reviews and magazines. A year's subscription will then include more than thirty-five hundred pages, filled with the best things in current periodical and general literature, and making four large volumes, for only six dollars. Each of the weekly numbers contains sixty-four pages, including fiction, travel, essays, biography, poetry, and a wide range of general discussion and information.

To new subscribers remitting before November 1st will be sent *gratis* the intervening weekly issues from date of payment.

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

The September number contains: "Out-of-the-way Corners in Westminster Abbey," by M. B. Thrasher; "Samantha's Summer Boarders," by Agnes C. Sage; "At School a Hundred Years Ago," by Agnes Repplier; "Joseph Francis"—the inventor of the life-boat,—by W. S. Harwood; "The City of Stories" (i), by Frank M. Bicknell; "Bob, Joshua, and Balaam," by Mary M. Mason; "The Jumping Bean," by Francis C. Williams; "The Story of Marco Polo" (vii-ix), by Noah Brooks; "A Boundless Sea," by M. L. B. Branch; "The Swordmaker's Son" (xxviii-xxx), by William O. Stoddard; and "Sindbad, Smith & Co." (xvii-xix), by Albert Stearns. The poetry is by Guy W. Carryl, Harriet P. Spofford, Margaret Johnson, E. A. Blashfield, and Margaret Mauro.

THE ATLANTIC MONTHLY. Price, 35 cents. \$4.00 per year. Houghton, Mifflin & Co., Boston.

The September issue contains. "The Problem of the West," by F. J. Turner; "Marm Lisa" (I-IV), by Kate D. Wiggin; "Story of Uncle Tom's Cabin," by Charles Dudley Warner; "Awakening of the Negro," by B. T. Washington; "Election of the President," by J. B. McMaster; "The Spirit of an Illinois Town" (II), by Mary H. Catherwood; "Japanese Folk-Songs," by Lalcadio Hearn; "The Country of the Pointed Firs" (XVI-XX), by Sarah O. Jewett; "A Day's Trip in Three States," by Bradford Torrey; "The Old Things" (XVII-XIX), by Henry James; "Niagara," by John B. Tabb; "Some Yorkshire Good Cheer," by Eugenia Skelding. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the September issue is "A Marital Liability," by Elizabeth P. Train. "A Hard Answer" is by Alice MacGowan; Henry A. Parker tells "How Hawkins was Regulated;" Wolf von Schierbrand writes of "A Painting of Apelles;" Jean T. van Gestel describes "A Tiger Hunt in Borneo;" "The Natural History of Fiatism" is acutely studied by Fred. P. Powers; A. L. Benedict writes of "The Life of a Medical Student;" Theodore Stanton details the "Advantages of International Exhibitions;" "Heroines, Past and Present," is by Nina R. Allen. The verse is by Mary E. Stickney, Clinton Scollard, and Robert G. Walsh.

ECLECTIC. Price, 45 cents; \$5.00 a year. E. R. Pelton, New York.

The principal papers of this issue are: "The Incarnation," by W. W. Peyton; "Bab and Babism," by J. D. Rees; "The Silver Question in America," by F. H. Hardy; "Talks with Tennyson," by Wilfred Ward; "Champagne," by George Harley; "Cycling in the Desert," by D. G. Hogarth; "A Politician's Romance," by R. C. Savage; "Oliver Wendell Holmes," by Leslie Stephen; "Atmospheric Pressure," by Henry Harries; "Art and Life," by Vernon Lee; "Trespassing on the Tsar," by Yegor Yegorevitch; "New Letters of Edward Gibbon," by R. E. Prothero; "A Heroine of the Renaissance," by Helen Zimmern.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. Transatlantic Publishing Co., New York.

The current issue of the English edition is before us. Doctor H. Parinaud treats of "Binocular Vision;" D. Morax of "Ocular Disturbances Observed in Cases of Epithelioma of the Sphenoidal Sinus;" A. Darier of "New Method of Keratotomy for Iridectomy of Cataract Extraction in Case of Complete Obliteration of the Anterior Chamber;" Du Gourlay of "Blood Pocket in the Orbit without Souffle or Pulse: Lesion of the Corresponding Frontal Sinus;" L. R. Culbertson gives a "Report of a Case of Anomalous Retinal Artery." There are the usual Reports of Societies and Miscellany.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

The principal papers of the September issue are: "Midsummer in Southern Spain," by Elizabeth R.

Pennell; "An Open-eyed Conspiracy" (III), by W. D. Howells; "Prisoners of Conscience," by A. E. Barr; "Harriet Beecher Stowe," by Richard Burton; "Prehistoric Quadrupeds of the Rockies," by H. F. Osborn; "The Gold Fields of Guiana," by Thomas Dalgleish; "Sir George Tressady" (XI), by Mrs. Humphry Ward; "Life of Napoleon Bonaparte," by W. M. Sloane; "Journey to the Livingstone Tree," by E. J. Glave. There are the usual departments, contributions of poetry, etc.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

In the September number Rufus B. Richardson writes of "The New Olympian Games;" Brander Matthews of "H. C. Bunner;" "On the Trail of Don Quixote" and "Sentimental Tommy," by A. F. Jaccaci and J. M. Barrie respectively, are continued; "Sport in an Untouched American Wilderness" is by Frederic Irland; "His Statement of the Case," by J. H. Morse; "Country Roads," by Frank French. The poetry is by Mary T. Wright, Rupert Hughes, C. E. Markham, and John J. a'Becket. There are the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

The September issue contains "Political Caricatures and Caricaturists," by Robert Shackleton; "Entailed Poverty" is by Kathryn Staley; "Anna Ella Carroll," by Lucinda B. Chandler; "Clinton Place," by Frances A. Mathews; "The Wraith of Wrosely," by Kenneth Lee; "A Prophet in His Own Country," by G. M. Simonson; "Two Hearts' Negotiations," by Francis M. Livingston. There are the usual departments.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. Review of Reviews Co., New York.

In the September issue the editor discusses "The Different Phases of the Presidential Campaign;" Theodore Roosevelt contributes "A Study of Three Vice-Presidential Candidates, and What They Represent;" Henry D. Lloyd writes of "The St. Louis Convention;" Newell D. Hillis discusses "The Outlook upon the Agrarian Propaganda in the West;" Albert Shaw tells us of "John Brown in the Adirondacks."

THE PHRENOLOGICAL JOURNAL. Price, 15 cents; \$1.50 per year. Fowler & Wells Co., New York.

The chief contents of the September issue are as follows: "Bryan and Sewall," by Nelson Sizer; "Phrenology and Psychology," by J. W. Shull; "Temperament in Handwriting," by H. S. Drayton; "Birth and Growth of an Idea," by J. A. Fowler; "W. W. Erwin," by Albert Zimmermann; "True Aim of Education," by H. Reynolds. There are the usual Editorial, Child Culture, etc.

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

In the September issue Rudyard Kipling presents a stirring "Barrack-room Ballad;" Anthony Hope continues "Phroso." There is a dramatic sea story, and characteristic tales by Mrs. Spofford and Clinton Ross.

Therapeutic Brevities.

Action of Quinine in Fevers.—Quinine is regarded as the great remedy for malarial fevers, but it sometimes fails. In preparing for a journey to fever-stricken countries, quinine should be provided in its best form, which is the *muriate*. The chemists that made quinine made it in the form of a sulphate, and in that form it passed into commerce, and so it remains, but this is not its most active form.

The German Pharmacopœia of 1872 includes the hydrochlorate of quinine. In North America the sulphate is almost exclusively used, but it requires eight hundred times its weight of distilled water to dissolve it, while the hydrochlorate dissolves in *fifty* times its weight of distilled water, and a small quantity of free acid greatly increases its solubility. As long as the stomach is in a healthy condition, solution and absorption of either the sulphate or hydrochlorate of quinine takes place readily, but in that torpid condition that prevails in congestive fever absorption is very slow or altogether suspended; hence death often results. In one instance a post-mortem revealed the sad fact that solution and absorption of the quinine had not taken place, so that the want of solution had resulted in death. Here it is very likely that if the hydrochlorate had been employed the patient would have been saved. The hydrochlorate is always preferable to the sulphate, and in cases where quinine in any form is given it should be taken just before meal time, as the gastric glands secrete hydrochloric acid at that period and will aid both solution and absorption. But where the secretion of acid in the stomach is deficient, the power of solution and absorption is destroyed, and the quinine cannot exert its influence; hence the many fatal cases of grave forms of fever. It has been shown clinically that the hydrochlorate is sixteen times more soluble than the sulphate, therefore the hydrochlorate ought always to receive preference and it should be demanded of pharmacists instead of the sulphate. From ten to fifteen grains of the hydrochlorate is sufficient to give in the interval in ordinary fever. When the sulphate of quinine is given in powders, it passes into the lower small bowel, where the conditions of absorption are unfavorable.—I. J. M. Goss.

External Use of Creosote in Fevers.—The action of external applications of creosote and guaiacol in producing perspiration and

lowering the body-heat suggested to me that they might be of use in the treatment of malarial intermittent fevers. I have used fifteen-minim doses of creosote rubbed into the axilla and covered with cotton wool, in eight cases of severe fever with temperatures varying from 103.2° to 104.4° , the temperature being either stationary or rising at the time the drug was applied. In every case perspiration, usually free, was produced in from half an hour to two hours, more commonly in about three-quarters of an hour, and was accompanied by a marked fall of temperature averaging 1.6° F. within three-quarters of an hour, 2.3° after an hour and three-quarters, and 3° within four hours of the use of the drug. Not only was the temperature reduced, but at the same time all the distressing symptoms, including the severe headache, always present with high fever in these cases, were markedly relieved, and the patients stated they became quite comfortable when the perspiration came on. In some of these cases, during other paroxysms of the fever, which were not treated with creosote, but in which the ordinary diaphoretics, such as ammonium acetate, etc., were given, the temperature remained high for eight or more hours. In only one case treated with creosote was there an after-rise during the paroxysm of more than one degree. In one case of continued fever in which I tried this treatment, a slight fall of temperature accompanied by some relief of the symptoms was produced, but the good effect lasted only a few hours.

This method, I think, deserves careful trial in tropical remittent and continued fevers, and I feel sure it will prove of great service in shortening and lessening the severity of the paroxysms of severe intermittent fevers, as its antipyretic and sudorific powers are much greater than those of the diaphoretics in common use, while it has not the drawbacks of the synthetic drugs, namely, in the depressing action on the heart, and the tendency to reduce the number of the red corpuscles of the blood, and thus to increase the state of anæmia caused by malarial fever.—SURGEON-LIEUTENANT ROGERS, in *Indian Medical Gazette*.

Sea-Bathing.—The great benefits derived from the inhalation of fresh sea-air and from sea-bathing cannot be too highly appreciated; but, as in the case of all other remedial agents, their use has its bounds and its qualifications. People accustomed to a non-invigorating inland atmosphere cannot with impunity expose themselves to the often keen air of the sea-

side. As a rule, they require warmer clothing than at home; and when want of strength reduces the power of taking exercise, the sense of drinking in health with the air does not justify sitting for long in exposed positions and without shelter. In respect of bathing we may speak more strongly.

... Even for robust persons of good swimming power a prolonged immersion is productive of exhaustion. Doubtless strong people, and perhaps even weakly ones, can stay in the stimulating salt-water longer than in fresh without feeling the bad effects of the lowering of the temperature of the body; and it must be admitted—nay, urged—that every individual body has its own rule. In use, even for healthy people coming from the enervating air of large cities, the first baths should certainly be of short duration. They should include, if possible, a plunge into water sufficient to cover the shoulders, and, if possible, a short swim. The water should be quitted in a few minutes, before depression has followed stimulation. The condition of the bather after the resumption of his clothes will soon afford a test of the exposure which he may undergo with advantage. This will consist, on the one hand, in a sense of warmth, refreshment, and readiness for muscular activity; on the other hand, subsequent feeling of nausea, of chilliness, of headache or of palpitation will show that the just measure has been exceeded.—W. M. ORD: "The Climates and Baths of Great Britain."

Summer Diarrhœa.—The hardest point of all to enforce, not upon mothers only, but sometimes by the consultant upon the attending physician, is that a child which is vomiting and purging will be much better off if all food be suspended for at least twenty-four hours. Another point which physicians sometimes seem slow in apprehending is that even the best adapted food, perfectly sterile at the time of administration, will decompose when placed in a septic alimentary tract. Sterilized milk, which is often depended upon, may prove noxious to the poor infant whose medical advisor insists upon giving it despite the protest of nature. Often have we seen the entire aspect of affairs changed even in an apparently desperate case, by the withholding of milk of any kind, sterilized, prepared, pre-digested, or what not. Weak barley-water may sometimes be given with advantage under these circumstances, not so much as a nutrient but to allay the child's craving for fluid and to satisfy the maternal desire to administer food; it should be given in small quantities and at sufficiently long intervals.

In the way of treatment apart from food, the first and most urgent matter is to cleanse the alimentary tract. This may be done by means of castor oil or calomel; the circumstances of the individual case will determine the choice of measures. The combination of castor oil and aromatic syrup of rhubarb, equal parts, given in doses suitable to the age of the patient, is frequently employed and with most satisfying results; the rhubarb and aromatics modify not only the taste but the action of the castor oil. The tract is gently and thoroughly cleansed of irritating matters, with a moderate astringent after-effect which is not undesirable.

After this, intestinal antiseptics are of great use.—*Philadelphia Polyclinic.*

Saw Palmetto in Bronchitis.—With me so far this remedy has proved unfailing, and I prescribe it with the assurance that the result will be most flattering. My father first discovered its value in 1885, in Florida. He had some years before, in Texas, suffered from a severe attack of typhoid pneumonia, which left him a physical wreck, weak, emaciated, and suffering from a harassing cough with profuse mucous secretion; at this time also he was confined to the house with acute prostatitis. Among other remedies he used saw palmetto, and when he recovered from this spell his lung trouble had disappeared. In a few weeks he prescribed saw palmetto—a teaspoonful every four hours in water—to a logger aged thirty-five, who had had bronchitis for three years during the fall and winter months. In ten weeks the patient was well and happy, and he has remained so to date. Again, a night watchman, aged forty-two, had for years suffered from bronchitis during fall, winter, and spring. Saw palmetto, a teaspoonful every four hours, led to complete recovery in three months, without recurrence.

These cases were well marked, and both suffered loss of flesh and strength; case 2 had been pronounced incurable. The old negroes I find have been using saw palmetto for years in coughs, colds, etc. One old darky informed me he would not give it for any doctor's medicine he ever saw. Their method of preparing it is to boil the berries down in syrup.—DOCTOR ELDRIDGE, in *Eclectic Medical Journal*.

Heart Therapeutics.—I must warn against the too common exhibition of digitalis. True, it prolongs the diastole and thus rests the heart, but this good is counterbalanced by

the high arterial pressure which it induces and the consequent straining of valves already weakened by inflammation. One must select his remedies from the list of cardiac depressants, and among these I give priority to aconite, veratrum viride, and chloral. In practice I use aconite in doses of one to three drops every four hours, combined with ten to twenty grains of citrate or acetate of potash, with continuous counter-irritation and poultices to the præcordium. Veratrum viride I have not used, but, reasoning from its unparalleled power of lowering blood-pressure and reducing the pulse-rate, it ought to be even better than aconite, were it not for its tendency to produce vomiting, especially in children; in adults this could be easily watched and the doses reduced on the super-vention of the least signs of nausea. It should be given in doses of one or two drops every hour, and not in the doses of five to ten or fifteen drops named in the B. P. Chloral best fills the indications, however, for it lessens the fibrinity of the blood, and also reduces blood-pressure and pulse-rate. Its administration along with anti-rheumatics, like potash, should be followed by good results in acute endocarditis. Nevertheless its use in practice does not always come up to what on rational grounds might be expected. I mention it rather by way of contrast, for the purpose of combating an irrational faith that would prescribe digitalis in every case of heart disease.—CHISHOLM.

Effects of Bromides.—These in excess often produce very peculiar results, and the symptoms for the alleviation of which they are taken become much worse, especially during menstruation. They may cause delusions and suicidal tendencies; irritability of temper is a frequent result. They have some effect on the urine. In chronic cardiac asthenia the symptoms often grow worse under their use, and a tendency to ptosis is common. They may produce paresis and an inability to walk, sometimes more marked on one side of the body than the other, simulating hemiplegia. They lead to failure of the memory, going on to partial paresis and involuntary movements of the bowels. To be sure, these extreme cases are rarely seen, but the reckless use of bromides with laymen is apt to cause them. I recall a case of Jacksonian epilepsy in which the child's father (a druggist) argued that if sixty grains daily would keep the disease in check, two or three times that amount ought to cure it; and the child sank in a heap after taking the larger dose, and became an imbecile, but improved when

bromide was withdrawn. Of two children taking bromide of lithium, one lost all memory of words, the other all idea of time. Suicidal tendencies and melancholia occurred at the menstrual epoch in a lady who had been taking a drachm of potassium bromide daily for four years, but these disappeared when the drug was withdrawn, and only reappeared when she resumed it subsequently.

Do not deluge patients with bromides, especially in cases of epilepsy.—S. WEIR MITCHELL.

Electricity in Ear Affections.—This agent promises the most scope and gives the best result during the decline of acute attacks, and the ear recovers (if it ever does) in much less time. I prefer the faradic current, because: the weakness of the ear power is associated with the weakness of the muscles of the middle ear, this form of electricity is generally better tolerated, and the instruments and method of use are simple.

In order to procure a suitable current, it is necessary to have it induced by a powerful coil of very fine wire. The cell should be a very weak bichromate one, of one liter capacity. One electrode should be a cylinder of copper, which the patient can hold in his hand; the other a carbon olive, covered with chamois skin and introduced into the external meatus, but not small enough to come in contact with the tympanum. The direction of the current is immaterial. I begin always with a very weak current, strengthening it gradually, but never allow it to become strong enough to cause pain. The sitting never exceeds five or six minutes, and is required only once in three or four days.—MOURNIER, in *Journal of Rhinology and Otolaryngology*.

Washing Out Bladder.—Introduce as large a rubber catheter as possible, to which securely attach a rubber tube three feet in length, in the distal end of which is inserted a funnel. After the catheter is introduced and the rubber tube properly adjusted to it, raise the funnel a foot above the level of the patient's body, then pour into it any fluid with which it is desired to wash out the bladder; this fluid must be at blood heat, three to five fluidounces in quantity. Have patient move hips about so as to bring the fluid in thorough contact with all the mucous membranes of the bladder. Lower the funnel a foot or two below the level of the patient's body, which will cause the fluid to return on the principle of the siphon flow. Repeat the manoeuvre as often as necessary.

This is a cheap and effectual way of cleansing and medicating the mucous membrane of the bladder. By it may be employed hydrastis, quassia, pinus canadensis, boric acid, borax, potassium permanganate, etc., all of which are good local applications.—*Eclectic Medical Journal*.

Uses of Chloroform.—Chloroform is valuable employed externally in liniments, in cases of muscular rheumatism, and for stiffness of muscles due to strain or excessive exercise. Possessing, as it does, not only counter-irritant but anæsthetic effects, its employment in this manner is most advantageous. Another use to which it is too rarely put is for the production of counter-irritation varying from slight reddening to actual blistering of the skin. Slight reddening is rapidly produced by applying a cloth saturated with chloroform to some portion of the skin so remote from the respiratory apparatus as to avoid inhalation in any large quantity; and the blisters may be formed by placing chloroform on the skin under a watch-glass, so that too rapid evaporation will not take place. For those who are unable to take opium in any combination for the relief of pain in any part of the body, a mixture of thirty drops spirit of chloroform and ten minims normal liquid cannabis indica is a valuable prescription.—*Therapeutic Gazette*.

Insomnia.—The warm bath is very efficient if properly carried out for the purpose of producing sleep. It should be administered in a room with a temperature of 65° to 70° F. The patient is made to stand with his head over the edge of the tub, and his head and face are then rapidly doused with water at 100°. The cooling of the body by the air, and the hot sponging of the head, send the blood to the head, dilating the vessels of the entire brain. The entire body is then immersed, except, of course, the head, in a bath at 98°, which is rapidly raised to 105° or 110°. In a few minutes the patient is taken from the bath, wrapped in warm blankets, and, without exertion on his part, taken to his room. The blankets absorb the moisture; in his room the night clothes are put on, a warm bottle placed at his feet, and possibly some warm liquid food administered. The sedative and refreshing result is often most marked.—DOCTOR ECCLES, in *Sanitarian*.

Flies in the Sick-room.—Practitioners among the poorer classes are often greatly annoyed by flies in the sick-room, and the annoyance

to the patient is doubly great.—Such, at least, was my experience not long since on New York's great east side. An excellent safeguard against these pests is the sweet-pea flower. The *Lathyrus maritimus*, the purple variety, grows near the sea-coast from New Jersey to Oregon, and beside the coasts of the Great Lakes. The *Lathyrus ochroleucus* is found on the hillsides from New England to Minnesota, and even further west; it is distinguished by its small, yellowish-white flower. Either of these varieties can be grown in the sick-room, and the sweet odor emanated seems very offensive to the ordinary house-fly.—BAKETEL, in *Medical Record*.

Alcohol in Cancer.—Hasse, for more than twenty years, has used injections of alcohol in the treatment of inoperable cancer, and he reports four cases of this kind as permanently cured. He uses the same method in cancer of the breast, and believes that cure can be effected by surrounding the breast with cicatricial tissue by means of alcohol injections. It is preferable, however, to extirpate the breast, and treat recurrences by the injections. In this manner he obtained radical cure in a case declared inoperable by Volkmann.—*La Semaine Médicale*.

Acne.—

- R Camphor, 0.30 gramme.
Salicylic acid, 0.50 gramme.
Washed sulphur, 10 grammes.
Zinc oxide, 2 grammes.
Soap, 1 gramme.
Dolphin oil, 12 grammes.

Make application each night; wash face in the morning with soap and warm water.

The dolphin oil inhibits the growth of bacteria in the skin.—BOECK, in *Annales de Dermatologie*.

Chronic Pharyngitis.—Dissolve fifteen grains of menthol in 150 grains of oil of sweet almonds; dip a water-color brush into this solution, and paint the inside of the nostrils therewith, while the patient holds his head far back and breathes deeply. Then with an elbow-shaped handle and larger brush paint the pharynx copiously, reaching down as far as possible; also paint up into the nose.—*La Médecine Moderne*.

An Effective Heart Stimulant.—A hot-water bag over the cardiac region; it is especially valuable in threatened heart-failure.

Medical Progress.

THE GUINEA-WORM.—When mature, this singular integumental parasite—*Dracunculus medinensis*, or guinea-worm,—of which the female form alone is known, attains an enormous length—two, three, or four feet. Though long, she is very slender, having a diameter of about one-tenth of an inch. Her anatomy is very simple; practically, she may be described as a musculo-cutaneous tube, enclosing an exceedingly delicate uterus, which, packed with millions of coiled-up long-tailed embryos, extends from mouth to tail. The head of the adult worm is rounded off, and is provided with a punctiform mouth and a crown of minute papillæ; the tail end is furnished with a sort of hook, which possibly functionates as a holdfast. The alimentary canal is a minute tube, compressed and thrust to one side by the uterus. Vagina and anus are wanting—at all events, they have not been seen; probably they are obliterated by the pressure of the enormous uterus.

When the embryos in her uterus attain a certain degree of maturity, the worm travels slowly through the connective tissues of her host, proceeding almost invariably in a downward direction toward the lower extremities. She generally gets as far as the ankle or foot. Arrived there she drills a minute hole in the derma, the superjacent epidermis being raised up as a bleb. In a day or two the bleb bursts or is broken, disclosing a superficial ulcer, with a little hole leading to, or, more rarely, occupied by, the head of the parasite, at its centre.

The prevailing idea is that the worm now creeps out, or is pulled out, and that her body, being cast away, decomposes, and so liberates the embryos. Another idea is that, the worm breaking down in the tissues, her young escape in the purulent discharge which the irritation of her presence excites. It can easily be shown, however, that neither of these views is correct. The worm gives rise to no purulent discharge so long as she is alive; nor, left alone, does she quit the body until she has first got rid of her young. This can be shown by the following experiment:

Squeeze a little cold water from a sponge so that the stream shall fall on the sound skin within an inch or two of a guinea-worm ulcer; at the same time watch the little hole alluded to at the centre of the ulcer. In a few seconds a droplet of a whitish fluid will be seen to well up in the little hole, or a delicate tube will be protruded from it for

an inch or more, and then suddenly rupture. Collect a little of the fluid that has welled up from the hole or escaped from the ruptured tube, and place it under the microscope. It will be seen to contain hundreds of coiled-up, apparently dead, embryo guinea-worms. Instill a little water below the cover-glass, and watch. In a few minutes the embryos seem to wake up, stretch themselves, move, and in a very short time they are swimming about vigorously. Manifestly they are in their proper element—water.

The explanation of these facts, which I have frequently witnessed and shown to others, is this: The parent guinea-worm instinctively makes her way to the foot or ankle because her young are most likely to get to water in that situation. In guinea-worm countries the natives wear neither shoes nor stockings, and their feet especially are frequently in puddles of water. In some strange way the guinea-worm recognizes this fact, and also recognizes when the foot of her host is actually in contact with the water. So she makes her way to the foot or ankle, and at the right moment, when the foot touches water, expels her young just as when we experimentally douche the limb she is lying in. I find she takes about a fortnight to empty her uterus in such intermittent efforts at parturition. When all her young have been expelled she begins to come out herself, and can then be more or less readily withdrawn, or she may break down and excite suppuration. I may mention that as the parasite has no vagina she gets rid of her young through her mouth; the contractions of the musculo-cutaneous wall, in response to the stimulus of water applied to the skin of her host, cause the uterus to prolapse through the mouth and burst. An inch or two of uterus prolapses each time the stimulus is applied; becoming very tense under the sustained contractions of the body of the worm, it ruptures and shrivels up, and so on until the entire organ is in time expelled.

The object of all these curious arrangements is to give the guinea-worm embryo the best possible chance to get at its intermediate host—a fresh-water crustacean, *Cyclops quadricornis*. Fedtschenko, now a good many years ago, discovered that cyclops was the intermediate host of the dracunculus, and convinced Leuckart and other helminthologists of this. But, so far as I know, his experiments had not been confirmed or repeated until last year. Having a case of guinea-worm under my care at the Seamen's Hospital, I bethought me of testing Fedtschenko's statements, and also of seeing if the guinea-worm could be raised in England. I procured a

large supply of embryos by the douching process I have described, and placed them in watch-glasses and little bottles, together with a number of cyclops collected from ponds in the neighborhood of London. They were placed together one evening. On the following morning, on looking at my cyclops with the microscope, I found that nearly every one of them had some ten or twenty guinea-worm embryos coiled up and wriggling about in their body cavities. The parasite had penetrated the armor of the cyclops by attacking it between the joints of the ventral plates; it does not get to the body cavity through the alimentary canal after being swallowed. I kept the cyclops alive for many weeks, and watched the slow metamorphosis of the incarcerated embryos. I repeated the experiment with the same success this year, as the preparations (for most of which I am indebted to Mr. Rousselet) and Mr. Andrew Pringle's very telling photographs show.

In this last set of experiments the parasites and the crustaceans were placed together on May 10th. I dissected, or rather crushed, a few cyclops from time to time, and so could follow the metamorphosis step by step. I found that soon after it enters cyclops the young guinea-worm changes its shape. When a free swimming animal the little embryo's body is flattened from side to side, something like a very much elongated flounder. Soon after its entry into cyclops this flattened body becomes cylindrical. The embryo then, after a very variable time, casts its transversely striated skin, and, along with this skin, gets rid of its long, slender swimming tail, a short, conically shaped, pointed tail, sometimes a mere rounded stump, taking its place. Apparently Fedschenko overlooked the cylindricalification of the embryo and the formation of this conical tail. Later the parasite moults at least once again, the short conical tail giving place to a sort of tripartite caudal arrangement, something like a minute three-toothed trephine. Simultaneously with the changes described the young worm increases in size, its alimentary canal undergoing considerable development and becoming filled posteriorly with a brown granular material.

It is to be presumed that when the metamorphosis is completed the parasite is ready for transference to a human host by being swallowed in drinking-water and while still in cyclops, and that under favorable circumstances it would attain maturity after boring its way into the connective tissues of its new human host.

I saw the metamorphosed guinea-worms alive and moving about in cyclops on July 19th—seventy days after their introduction.

Fedschenko found that in the warmer climate of Turkestan thirty-five days sufficed for the metamorphosis. It takes longer in England, therefore.

These are interesting biological facts. At the same time they have one or two obvious practical bearings on the prevention and treatment of guinea-worm disease. First they show how desirable it is to abstain from unfiltered or unboiled drinking-water in guinea-worm countries. They also indicate that it is wrong to commence winding out a guinea-worm before she has expelled all her young, premature attempts at winding out being unphysiological, and sure, or nearly so, to end in rupture of the worm and the extravasation of myriads of young into the tissues, with consequent cellulitis and extensive sloughing. Though I unhesitatingly condemn premature attempts at winding out, I am inclined to think that the recently recommended treatment of guinea-worm by local injections of weak perchloride-of-mercury solution, with the view of killing the worm and procuring her absorption under aseptic conditions, is worth a trial.—DOCTOR MANSON, in *The Lancet* (London).

WHY IS THE NEGRO BLACK?—It will be a revelation to many to learn that the baby negro is not born black. Even so long ago as 1765 Le Cat noticed that the newly born negro is of a reddish color. That observation has since been frequently confirmed; and it is now pretty widely known that the baby negro begins to follow in the footsteps of his parents as regards color within a few days after birth, yet at the moment of birth he shows a disposition to aspire toward the civilized races, being white, or, at worst, red in hue. It is generally assumed that the prime of all the causes of a negro's blackness is the hot sun beneath whose more or less vertical rays he is doomed to live. There is, however, a physiological condition of the skin which differentiates that organ from the integument of a European. The negro possesses a more developed vascular sudoriparous system than we do; in other words he has more and larger sweat glands, and they are more liberally supplied with blood. By means of these he perspires much more abundantly. This condition is possibly a contributory factor in his blackness. It is an important element in the investigation to remember, however, that the blackest of all black people are almost invariably found under certain very definite climatic conditions. That is to say, they are found where

great heat, strong light, and much atmospheric moisture are in combination. For example, the blackest negroes in Africa are those who live in Guinea, where the greatest amount of rain annually falls. On the other hand, the people who live in the dry section of the Nubian Desert have red skins. Heat, light and humidity are all causes of pigmentation, and if to these we add the fact of the highly developed vascular sudoriparous system of the negro, we have traveled as far as present investigations are able to help us. The question is one of genuine scientific interest; and, perhaps, when the Matabeles and the Dervishes and the Sudanese have all settled down quietly in the ways of civilization and order, science may turn her attention in this direction, and tell us much that is both new and interesting about those races who differ so markedly from ourselves in color, character, and many other particulars. —*The Hospital*.

HUMORAL PATHOLOGY.—We do much better now. We have a pathology of the zymotic diseases which is harmonious and strictly scientific and conformable to the true spirit of induction. But it falls in my way to say, to-day, that it is not at all to the credit of our craft that the old credulity breaks out anew with every announcement of progress in bacteriology. Greedy, gulping acceptance of principles, unproved and half-proved, in bacteriology, is the disgrace of the day; most of us have been obliged to change front three times on the bacteriology of diphtheria, and it is as certain as death and taxes that we shall play the jumping-jack through future years if we do not, after the manner of scientific men, receive valuable hypothesis *as* hypothesis.

Proprietary preparations do not differ in any regard from the patent medicines which are swallowed in such quantity by the laity to feed the inextinguishable laughter of the doctors. It is not in order to sneer at the girl who buys love-powders in the kitchen, or madam who buys subscription-books in the parlor, if we, snickering in the office, are seduced by the drummer's smooth tongue into the purchase and use of secret remedies. . . . We are told that the formula is on each bottle. Formula, indeed! The Egyptian sphinx has a very open countenance, yet the ages have not wrested her secret from her. . . . The formula on each bottle! Spare us such formulas in the kitchen, for if the cook has only the *names* of her ingredients hinted to her, "combined with aromatics," she will never be able to concretely

realize the theoretic differences between pudding and bread or between plain omelet and baked custard, and the only certainties she will deal out to us will be dyspepsia and consuming wrath. . . . There are superstitions in medicine to be sloughed; there are noble certainties to be attained. Throw away your samples and practice medicine! —DOCTOR MILLIKEN, in *New York Medical Journal*.

SUTURE OF THE HEART.—A man aged twenty-four years had, some hours before admission, received a stab wound in the left side. He went home alone, and about one hour afterwards was found lying in a pool of blood. On admission to the hospital he was found unconscious; the pulse could not be felt, and no heart impulse could be felt, although heart sounds could be heard to the right of the sternum. In the fourth left intercostal space, in the mid-axillary line, parallel with the rib, was a punctured, non-bleeding wound, about an inch in length. After a camphor injection the patient began to breathe and a pulse could be felt. The left side of the chest did not move on respiration.

Under chloroform the fourth rib was resected, and the pleural cavity found partially filled with blood and compressing the lung. After evacuating the blood the lung dilated and was found not to have been wounded. On resecting the third rib a wound was found about one inch in length in the pericardium. The sac was filled with blood, and, by enlarging the wound, a wound was found in the left ventricle, about two centimeters in length, from which all the hæmorrhage came. The wound was sutured, after which the hæmorrhage ceased. The heart was sutured with difficulty on account of the frequent pulsations. The pulse after the operation was very quick and feeble, but improved after a subcutaneous saline injection. The patient died two and a half days after the operation.

At the necropsy it was found that a large branch of the coronary artery had been wounded; the wound had begun to heal, but there was evidence of pericarditis, and various bacteria were found in the fibrinous exudation.—CAPPELEN, in *Norsk Magazin for Lægevidenskaben*.

BIRTH THROUGH CENTRAL RUPTURE OF PERINEUM.—In a primipara, aged twenty-six, the membranes ruptured eleven hours after the beginning of labor, when the head, pre-

senting in the first position, bore down on the perineum. After a time the midwife made an incision on each side, about a third of an inch deep. In protecting the perineum with the hand she felt something like a hæmorrhoid protruding, but on inspection it proved to be the nose and part of the face of the fœtus. A pain followed, and the whole head was delivered through the same opening, which was seen to be behind the unlacerated posterior commissure and in front of the anal ring. The body came out during the next pain, twelve hours from the beginning of labor. Ten minutes later the after-birth was expelled through the same unnatural aperture. The child was a male, weighing eight pounds, and measuring nearly twenty inches. The mother's perineum was examined; a large rent, actually wider than the vulvar cleft, was seen. The anal ring and rectum were not involved. The posterior commissure formed a bridge of flesh not an inch broad when gently stretched. The tissues bounding the rent were badly bruised, and the posterior vaginal column remained untorn, so that there were two openings in the vagina leading to the unnatural canal in the perineum. There was also laceration of the vulva close behind the urinary meatus. The perineal rent was closed directly after labor, the bruised tissues being first trimmed away, but a second perineorrhaphy was required a fortnight later, and ultimately a small vaginoperineal fistula remained.—*Sitzinsky*.

FOOD AND STIMULUS.—It was late on Sunday night; I was sitting in my office alone. I became aware of a stillness, unusual for even that quiet hour. I turned to the old grandfather's clock in the corner of the room—an heirloom and highly prized, by the way. On opening the panel door in the case, I found the pendulum still swaying regularly from side to side, but not with its full range. The second hand on the face rocked to and fro with perfect regularity, but did not advance over its usual circular course. The great weights had sunken as far as the fully unwound cord would admit. I had neglected to wind the clock the night before, the accustomed time for performing that weekly duty, and the faithful old servant had exhausted—almost exhausted—the last vestige of force stored there more than a week before. The food material had been all used up. I thought, will the winding restore the swing of the pendulum to its full degree? Will it bring back the tick and movement of the works and hands? I tried it and waited. The pendulum and second hand continued

their weak, purposeless movements, but they gained no power. They became even fainter. There was the force, ready to act, in the suspended weights—enough of it to run the machinery for eight days. The weak, dying patient had been fed to repletion, but nothing had been gained. I gave the pendulum a slight push; the familiar tick was heard, the oscillating hand advanced; the clock was off for a week's run. I had given a stimulus.—SAMUEL WOLFE.

HAIG'S UREA THEORY.—When there is an increase in the alkalinity of the blood, there is also an increase of uric acid in the blood, while a reduction in the alkalinity of the blood results in a precipitation of uric acid in the tissues, especially the liver and spleen. With a decreased alkalinity there is a corresponding increase in the acidity of the urine, which therefore indicates the condition of the blood. The ratio of the formation of uric acid to urea is constant. Urea is eliminated as formed, and, as the relation of uric acid to urea in the urine is variable, this variability is accounted for by retention or excessive elimination of uric acid. The uric acid daily excreted is derived from three sources: (a) that formed by nitrogenous metabolism along with some urea, about one of uric acid to thirty-five of urea; (b) uric acid and other members of the xanthin group introduced with the food; (c) that stored in the body which passes into the blood when the alkalinity is increased.—*Indian Medical Record*.

ACTION OF CONDIMENTS ON DIGESTION.—A number of experiments have been conducted to determine this question. It has been found that the introduction of mustard or pepper into the stomach leads to marked increase in the secretion of the gastric juice, and also of pancreatic fluid—the latter is increased to three or four times its normal quantity. As might be expected, both gastric and pancreatic fluids are rendered somewhat more watery than normal, but nevertheless they exhibit the usual amount of activity in the digestion of all classes of food-stuff.—*Dietetic and Hygienic Gazette*.

AORTIC ANEURYSM.—If it arise before any branches have been given off exclusive of those due to infectious disease, the trouble is almost always due to syphilis.—*Medical Summary*.

The Medical Age.

VOL. XIV.

DETROIT, SEPTEMBER 25th, 1896.

No. 18.

Original Articles.

PHYSIOLOGY OF BATHING AND SWIMMING.

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Water, where used in the form of baths, affects the human body chiefly in two ways, namely: through its mass, and through the temperature which it carries. As regards the human body itself we may, furthermore, speak of a direct and an indirect action of water. Whenever water is employed merely for purposes of personal cleanliness, it is for its *direct* effect on those tissues with which it is brought in contact. When, however, one wishes to employ this fluid to influence remote parts—those with which it cannot be brought into immediate contact—then it is its indirect influence, exerted through the nervous system, that must be called into play. While both these different effects must more or less overlap one another, and can, in practice, be scarcely separated, it is well always to keep this physiological distinction in mind.

The study and investigation of the physiological effects of water can scarcely be said to have received much serious attention. Nearly all that is known of its physiological and its therapeutic effects is due to Wilhelm Winternitz and his pupils, whose unshaken and lifelong faith in its efficacy merits, at least, admiration. It would seem almost superfluous to state that a knowledge of the normal or physiological action of water of different temperatures, and of its different forms, is essential to its intelligent employment, since in the case of all newly adopted or discovered therapeutic agencies an investigation into physiological properties is generally the first thing demanded.

Experiments have shown that different tis-

ues of the body react differently toward water of different degrees of temperature: thus, *connective* tissue expands under the influence of *hot* and contracts under that of *cold* water, while *elastic* tissue, on the other hand, reacts like soft rubber—that is to say, it can be made to contract by hot and to expand by cold water. In the case of the human skin, the elastic-tissue elements seem to prevail within temperature limits ranging from 32° to 145° F.

When it is remembered that 98.6° F. is the temperature which is maintained by man, with little variation, in all climates, so long as he is in a normal condition of health, this degree may be called his *temperature optimum*. All the chemical processes and all the physiological functions that are essential to life must be best performed at this temperature, and the function of a most complicated heat-regulating mechanism is in constant requisition to maintain it. Consequently, water which has an exclusively direct and merely local effect on the body and its functions must be of a temperature that does not in the least interfere with either heat-production or heat-radiation; this temperature may perhaps vary within certain limits, for the average individual is probably superficially a few degrees below 98.6°, and may be said to be of the temperature of a water which feels neither warm nor cold to him.

When one recalls the fact that remote tissues and the deeper organs must naturally be affected by bodily contact with a water of either higher or lower temperature than that just mentioned, and when, furthermore, it is realized that this effect must be the greater the larger the temperature difference is, he begins to appreciate that water may become a most powerful factor for good or evil, according to its application, which should always be governed by a knowledge of its normal physiological properties.

*Surgeon U. S. Navy.

It has also been experimentally demonstrated that, during bathing, an electrical current passes from the warm to the cold medium; that is to say, in a bath which feels cold there is a descending electrical current, and in one which feels warm there is an ascending current. The strength of these currents, as can be readily imagined, must vary in direct proportion to the temperature difference existing between the body and the water surrounding the same. And these currents, thus called into existence, must either weaken or strengthen the normal nerve-currents which are constantly present in the living, active body: thus, the normal efferent motor current is directly strengthened by a cold bath, hence the inclination, when in a cold bath, to make rapid muscular movements; and in such a bath, for similar reasons, the normal nerve-current in afferent nerves must be weakened. Another observation of some importance in this connection is, that a certain amount of swelling by absorption takes place whenever the body is kept in contact with water for a length of time. Now, a calming effect is said to be produced whenever this swelling by contact is greater than the electrical current is strong; an exciting effect, on the other hand, is produced whenever the electrical current preponderates.

The prompt disappearance of the itching sensation about the skin, whether normal or diseased, and of the feeling of general fatigue, when the body is subjected to the influence of a hot bath, is explained by the swelling which takes place in the peripheral termination of the nerves of general sensation.

The existence of special endings of temperature nerves in the human skin having been conclusively demonstrated not only by physiological experiments but by clinical and pathological observation, it is probable that it is through these that the greater portion of the reflex effects due to water are produced. In any event, every known fact so far ascertained seems to point to the nervous system as being the channel through which water of varying degrees of temperature affects the normal functions of the body in bathing. The refreshing and restorative qualities of a cold douche after having taken a

certain amount of exercise are well known, and all are equally well acquainted with the power of a few drops of cold water thrown into the face of one seized with syncope. It must be kept in mind also that the normal excitability of nerve-endings in the skin may be increased or diminished by contact with water of different degrees of temperature, for experiments made with the æsthesiometer of Sieveking have proved that hot water will increase and cold water diminish excitability to a great degree, even to the production of complete anæsthesia.

Besides these local effects on the nerve-endings and their functions, we must take into account the reflex effects produced upon the motor and inhibitory nerves. Contraction of both voluntary and involuntary muscles can be induced reflexly by the application of cold water; moderate chilling will invariably induce contraction of the capillaries and smaller arteries and veins, while moderately hot or warm water will cause their dilatation, thus plainly evidencing a reflex influence upon the vaso-motor portion of the sympathetic nervous system.

The great vascular dilatation that follows upon a merely temporary contraction induced by very cold water is an example of stimulation of the inhibitory and the vasodilator nerves by this means; and all have no doubt observed sad cases in which a temporary blanching of the surface of the skin was immediately followed by hyperæmia succeeded by stasis and congestion.

That we have here to deal with reflex phenomena is still further proven by the fact that the contraction of the capillaries and of the smaller arteries and veins is not confined to the spot where the application of cold is made, but is observed also at remote points. If, for example, a sphygmograph be applied to the radial artery at the wrist, and a normal tracing taken, and then a piece of ice or a quantity of cold water be applied to the elbow, contraction of the radial vessel will be found to have taken place when the next pulse-tracing is recorded; and this reflex contraction of the vessels may be carried to such an extent as to cause complete occlusion of vessels, and consequently lead to the complete arrest of the circulation over the affected area. This simple physiological fact

would go far toward explaining a number of little mishaps that occur every summer during the bathing season. The temporary loss of memory or even of consciousness that sometimes supervenes during swimming or bathing, can only be explained by temporary arrest of circulation in certain areas of the brain, due to reflex contraction of the blood-capillaries caused by the too prolonged influence of cold. It has been experimentally shown by Magendie and Valentin, that whenever the lumina of certain vessels are diminished, less blood flows through those vessels in a given time, even if, for the time being, the heart's action should be increased.

My personal interest in bathing was aroused through the intimate and practical relation which it bears to active exercise. It is well known how profoundly circulation and respiration are influenced by the latter, and that the majority of those who pursue exercise of almost any kind systematically, with a certain fixed purpose in view, also take their baths with great regularity, satisfaction, and enjoyment; thus the question very frequently arises as to which is the best form of bath to take after this or that form of exercise. To the conscientious medical adviser it is a matter of some embarrassment to be obliged to confess ignorance in many cases. On the one hand, very little physiological work has been done with the view of ascertaining the effects of exercise; and on the other, the profession is but imperfectly acquainted with the results produced by bathing: both are prescribed and taken empirically, and both, therefore, often do a deal of harm instead of being productive of good. Both exercise and bathing being capable of the greatest possible amount of variation, according to conditions, the exact influence of either upon the tissues and their functions should be thoroughly understood before one begins the study of their mutual relation. Circulation and respiration being more especially influenced and concerned in the taking of exercise, as well as in bathing, a sphygmographic investigation, while in itself it can never prove exhaustive, ought to go far in revealing many of the problems involved; and to present some of the results obtained from an investigation of this character, is the object of this paper.

Figures 1, 2, 3, 4 and 5 exhibit tracings

obtained from several young men in perfect health, and taken with the express view of showing the effects a certain amount of exercise has on the pulse; these were taken by means of a Dudgeon's sphygmograph applied to the radial artery at the wrist. The exercise taken, in each instance after the normal tracing had been made, consisted in doing the various strength tests prescribed or required by the anthropometric chart in use in gymnasia,—these various tests, providing one does his best, call into play all the muscles of the trunk and limbs to their utmost capacity of strength, if not up to the point of fatigue. While, therefore, the actual amount of work done in each individual case, and expressed in kilogrammeters of work, must differ with personal capacity, it amounts, nevertheless, to the best efforts of the subject and ought, consequently, to affect all alike, or as nearly alike as could be expected, providing the circulation is normal and the anatomy of the heart and blood-vessels perfect.

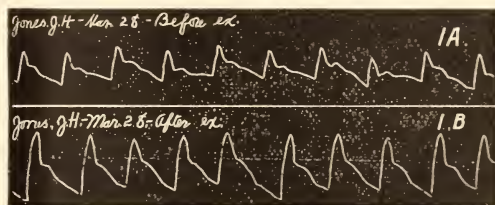


FIG. 1.

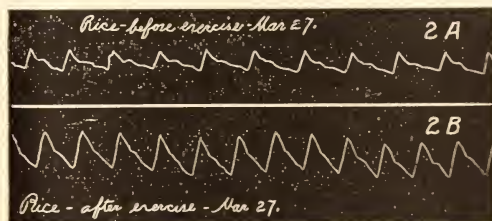


FIG. 2.

Figures 1 and 2 represent typical pulse-tracings and show the influence of exercise in a most striking and unmistakable manner. A, in all the figures, exhibits the normal, or a tracing taken before exercise, while B represents tracings made immediately after exercise. As an immediate consequence of the exercise it is found, first, that the pulse-rate is quickened; second, that the up stroke is considerably lengthened; third, that the elastic after-vibrations in the line of descent of

the tracing are almost completely abolished—in other words, that the lines have become much straighter; and fourth, that the entire pulse-tracing looks much more voluminous than under normal conditions. This collection of characteristics seems to admit of but one interpretation, namely: it points to a dilated condition of the vessels and a consequent lowering of arterial blood-pressure. The blood-vessel walls are relaxed, and more blood flows through the affected area than under normal conditions, even if the vessels themselves are not completely filled, as they naturally would be under the normal or a higher pressure.

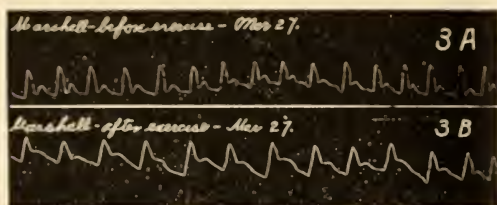


FIG. 3.



FIG. 4.

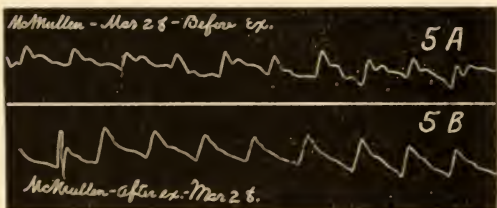


FIG. 5.

Figures 3, 4, and 5, while showing the same general characteristics when tracings A and B are compared with each other, also exhibit certain additional points which are worthy of consideration. It is found, in Figures 3 and 4 more especially, that in the normal pulse-tracing A the dicrotic wave in the line of descent is unusually prominent, so as to give the entire pulse-tracing in some parts an almost completely dicrotic character. Now, a dicrotic pulse is found in mitral insufficiency;

in typhoid fever during the third week; as the result of a steam bath; and sometimes as the result of a sudden and extreme muscular effort,—in all these instances it signifies a lowered arterial pressure. Since no mitral insufficiency could be detected in either of the two cases from which the tracings represented by Figures 3 and 4 were obtained, the only explanation of the character of the normal pulse-tracing must be, either a naturally weak condition of the muscular walls of the heart and blood-vessels, or some temporary nervous influence.

It is known that the dicrotic character of the pulse of typhoid fever, as well as that produced by the hot bath, can be made to approach the normal again by the simple administration of a moderately cold bath. It is, furthermore, a matter of frequent observation, in cases of mitral insufficiency (as was first shown by Oertel), that the dicrotic pulse assumes normal characteristics during muscular exercise such, for example, as is involved in a gradual and slow ascent of a mountain. A dicrotic pulse due to sudden muscular effort may be restored to the normal by a cold bath. In all these instances of restored normal movement we find a muscular element in constant play: in one case the muscular tone is increased by the administration of a cold bath, in the other by a gentle systematic form of exercise. It is unnecessary to dwell further on the fundamental significance of these apparently simple facts.

Any one, after a careful examination of Figures 1, 2, 3, 4, and 5—showing the different effects on the circulation produced by the same exercise on different individuals—will not only see the great necessity for further investigation of this subject, but must begin to appreciate, as never before, the desirability of a high-grade medical supervision in the administration of gymnastic exercises to both young and old.

Having now considered the more striking features of the effects produced by a certain well defined form of exercise on the circulation, so far as these can be ascertained by the simple means of a sphygmograph, let us proceed, after the same manner and by the same means, to study those produced by water of certain stated degrees of temperature.

The two pulse-tracings, A and B, of Figure 6, were obtained from a perfectly healthy, rather athletic young man, of small stature, about eighteen years of age. His normal pulse at the wrist is represented by tracing A, while B was obtained immediately after an exposure of his entire body to a needle douche of the temperature of 52° F. for a period of fifteen seconds. It will be observed that the immediate effect of the cold water in this form on the pulse was: first, a slowing of the

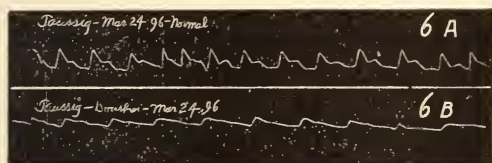


FIG. 6.

rate; second, quite considerable shortening of the up stroke; third, a diminished dicrotic wave; and fourth, elastic vibrations, if anything, rather increased in number and extent. All these observed characteristics indicate a strong contraction of the vessels, an increased arterial pressure, and less blood flowing through the area thus affected.

If, now, we compare the tracings A and B of Figure 6 with the corresponding tracings shown in Figure 1—which latter exhibit the immediate effects of exercise,—the contrast shown to exist between the two could hardly be more striking nor more easily recognized. The two conditions thus described are not only entirely different, but—what is of still greater significance—they are of a diametrically opposite nature. Any further attempt at explanation of the conditions, so plainly shown by the simple comparison of the respective tracings in these two figures, is, consequently, superfluous. The refreshingly agreeable effect of a cold douche, taken after exercise, is thus very strikingly shown to be one (in great part at least) of the opposite effects, physiologically speaking, which either produces on the organs of circulation.

The tracings A and B in Figure 7 show a different state of things when compared with the tracings in Figure 6. These were taken from a young man of very good physique and in perfect health, aged seventeen years. A represents a perfectly normal pulse; and tracing B, taken immediately after a plunge

and swim for twenty seconds in water of 45° F., shows the effects of both cold water and the exercise on the pulse. The normal pulse was changed into a dicrotic one, and its rate considerably increased; arterial pressure was lowered, the vessels incompletely filled with blood and actively dilated, through direct stimulation of the vaso-dilators by the sudden application of rather cold water to the entire body. A mere glance at Figures 6

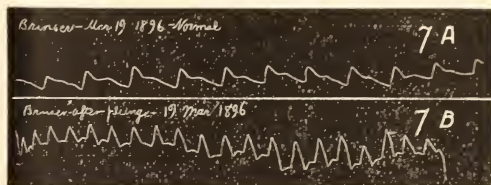


FIG. 7.

and 7 shows, as well as one could wish, the totally different results on the circulation produced by cold water administered in different ways. Without a close analysis and a knowledge of the physiological effects produced by both exercise and water on the circulation, an intelligent interpretation of the difference existing between the tracings B of both figures would be absolutely impossible. Thus it is plainly seen how the subject widens even when viewed from the threshold, and the apparently simple act of administering a bath assumes a much more complicated character than was supposed. These tracings, moreover, are not mere freaks, but recur time and again, providing the conditions under which the observations are made are exactly alike. The complicated nervous mechanism involved in their production reacts with wonderful delicacy, promptness, and uniformity. In the two preceding figures the effect of water on the pulse is shown without any exercise intervening between the two observations, represented by tracings A and B respectively. Now insert a certain amount of active exercise between the normal tracing and the one taken after the bath or plunge, and see what their mutual relations are:

In Figure 8, the normal pulse-tracing A was taken from a vigorous and perfectly healthy young man, aged seventeen years; a moderately quick run of a quarter of a mile followed, in a well ventilated gymnasium and

over a well constructed running-track, after which tracings B and C were immediately taken; and tracing D was obtained immediately after an exposure of the nude body to a shower and needle douche of fifteen seconds' duration, the temperature of the water registering 59° F. A shows the characters of



FIG. 8.

a perfectly normal pulse, while B and C both exhibit a marked and dicrotic phase in the pulse, and also a varying arterial pressure synchronous with the quickened respiratory movement incident to running; and in D there is a most decided approach to the normal tracing A.

When one reflects upon the great change from the normal which the pulse underwent during this run, as shown in B and C, and its prompt restoration to the normal by exposure to a shower bath of but fifteen seconds' duration, he may perhaps gain some idea of the physiological fitness of things.



FIG. 9.

Figure 9 exhibits three tracings obtained in the same manner as the foregoing, with the important exception that a cold immersion was taken immediately after the run, instead of a shower bath, and also that the

run was much slower in this case; the plunge merely amounted to a momentary immersion into a pool of water of the temperature of 45° F., no attempt at swimming being made, the object being to eliminate as much as possible the effects of the exercise and to get the first effects of the water alone. Here is an example of the powerful constricting effect which cold water exerts on the blood-vessels, shown in tracing C, otherwise also plainly indicated by the blanching of the entire skin, but no attempt on the part of the pulse to assume normal proportions.



FIG. 10.

Tracings A, B, and C, of Figure 10, were obtained under conditions similar to those of Figure 9; the run, however, was rapid, and was finished in half the time. Tracing A does not fulfill the requirements of a perfectly normal or typical pulse at the wrist; but that the character of this pulse, as shown, is peculiar to the individual, is proved by the fact that repeated observations made months apart always gave the same pulse-tracings. Tracing B brings out in a still more striking manner than Figure 9 the influence of a quickened respiration on arterial pressure incident to running.—I do not remember of ever having seen these respiratory undulations more distinctly shown. In tracing C, taken after a plunge and swim of fifteen seconds' duration in water having a temperature of 52° F., is again shown the preponderating influence of the cold water without any sign of an approach on the part of the pulse to the normal.

Thus far, then, these observations would show that the administration of a shower bath after exercise would be much more in accordance with the indications and the requirements than that of a sudden plunge into cold water.

The tracings in Figures 11, 12 and 13 were all obtained from members of a swimming class. Tracing A in each represents the normal pulse, taken before swimming; B, the pulse after they had been in the water from fifteen to twenty minutes. The temperature

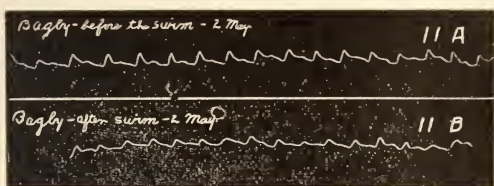


FIG. 11.

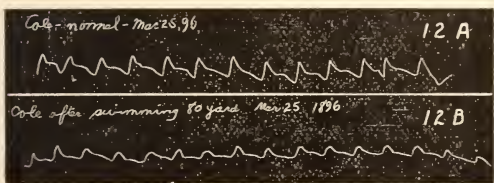


FIG. 12.

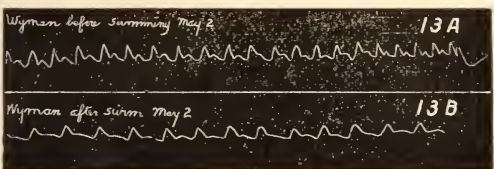


FIG. 13.

of the water, taken fifteen minutes before the swimming began, was 82° F. and felt pleasant and agreeable to the skin. There is but little departure from the normal pulse in each case—they all show the same reduction in the volume.

Owing to very limited opportunities afforded this year of making further and more detailed observations with regard to swimming, my studies in this direction remain incomplete. But enough has been said and done not only to direct attention to the great importance of the subject, but also to point out to those more especially interested the opportunities for further research in this direction.

U. S. S. Raleigh.

BRAIN SURGERY—REPORT OF A CASE.*

BY CHARLES W. HITCHCOCK, A.M., M.D.

Of all the triumphs of surgery during the last decade, none has been more conspicuous

for real advance, gaining new vantage-ground of incalculable benefit to mankind, than the surgery of the brain; a review of the literature of the subject shows it to be rich in valuable additions, in which American surgeons have played a prominent part.

It is interesting to note that in 1889 Senn stated that: Mr. Jacobson had only been able to find "ten successful cases of trephining of the skull for hæmorrhage during the last one hundred years." Such a statement, made less than ten years ago, brings rather forcibly to our minds the great strides of this decade; for each year since 1888 has given numerous reports of successful trephinations, not only for hæmorrhage, but for tumors, abscesses, cysts, etc. Cure for idiocy, imbecility, and even general paresis, has been sought in trephining. The brilliant results in some lines, and in properly selected cases, have led to considerable work born of ill-considered enthusiasm, and not entirely creditable to the annals of surgery; for it is not yet anywhere authentically recorded, I believe, that craniectomy has added materially to the intellectual calibre of an idiot, nor made of an imbecile an ornament to society. Yet, in some quarters much of this work is continually done.

Better excuses there have been for trephining for epilepsy, and in some traumatic cases excellent results have fully justified the operation; but it is most astonishing to note the utter lack of discrimination with which some surgeons have regarded this work. A few months since I was shocked to hear a somewhat prominent surgeon state his belief that probably ninety per cent. of all cases of epilepsy were operable and should have the benefit of trephining. I do not believe that such an estimate could be sustained by facts or reliable figures. It is as yet a matter of the greatest uncertainty if even cases of Jacksonian epilepsy are fit subjects for operation,—i.e., with any fair hope of successful result,—and in many cases of traumatic origin grave doubts attend even the probability of success of operative interference. Early operation in traumatic cases, especially when there seems to be some indication or probability that depressed or displaced bone is a present and constant source of irritation, is of course justifiable and desirable, and it is certainly under

* Read before the Michigan State Medical Society.

such circumstances that trephining for epilepsy must yield its best results. But not even all traumatic cases hold out any certain or likely promise of success, for in some the damage already done to brain-cells—from concussion perhaps—has worked a mischief beyond the surgeon's reach. In traumatic cases, too, of long standing, even though pressure was the initial irritation, it is more than doubtful if even the most thorough removal of that pressure will restore a normal condition; changes have more than likely gone on in brain tissue, with which the surgeon has no business, and which his interference cannot mend.

The deduction seems a rational and easy one, therefore, that in epilepsy the surgeon is likely to be of real aid only in those cases where he can hope to remove some irritating pressure due to displaced or depressed bone or other foreign body, and so restore a normal condition or place injured tissue on a surgical basis for healthy repair.

It is to be regretted that so much indiscriminate trephining in these cases has been indulged in, with the apparent idea that by the removal of a disk of bone some magical effect upon the action of brain-cells was to be looked for—a hope at once irrational and chimerical. Changes already accomplished in nervous tissues are not to be eliminated by the simple removal of a portion of the bony envelope surrounding the same.

Starr, while discussing trephining for epilepsy, cites cases in the experience of himself and others, and aptly sums up the situation thus:

The question then arises: Shall we continue to trephine any cases of traumatic or localized epilepsy? Judging by general results, which are unfavorable, we should be inclined to stop. But when it is taken into consideration that in no case is it possible without an operation to determine the exact pathological conditions present, and that a certain proportion of the pathological conditions are removable, it is evident that an operation, if not attended with danger, may be reasonably undertaken. Some patients have undoubtedly been cured.

The statement should be made to the patient: "You have a brain disease; that disease is causing fits; that disease may be curable by operation; we cannot tell whether it is curable until we operate; we cannot promise that the operation will in any way benefit; a majority of chances are against

cure, but it is the only method of treatment which affords any hope whatever, and it is a method which is fairly safe."*

I pursued essentially this plan in the case of E. C——, male, 27, single, whose family history is negative. He states that when seven years old (he recalls that "'twas an awful hot day") a boy pushed him off the fence. There was no wound or abrasion of the head, so he declares, but the accident was followed by paralysis of the right side that persisted for some time, though he gradually recovered therefrom. Next he had several convulsions at irregular intervals, varying from a few years to a few weeks; more recently he had attacks about once a week—they occurred invariably at night or when he was lying down, and were always preceded by aura in the right hand and arm, which became numb and very cold, and to so marked a degree as to awaken him if asleep. His head was apparently symmetrical, and bore no scars or marks of injury.

I fully explained to him that there was just a possibility—hardly one chance in ten—that operation might benefit him somewhat. After due consideration he decided he would accept the chance, and consequently I operated, trephining over the centre for the right arm on Tuesday, June 2d. It is, of course, too early to speak of results. Personally I was not, and am not, at all enthusiastic as to benefits to accrue; but it was the patient's choice and I shall be glad if any betterment succeeds.

While the diagnosis, localization and removal of tumors, cysts and abscesses have been most brilliant and wonderful, it seems to me that in the saving of human life by trephining for hæmorrhage, in traumatic cases, brain surgery really has its greatest and crowning glory. Cephalic traumatism involving serious intra-cranial lesions are of such frequency as to present a large field for good work; and *laissez-faire* treatment and death have so long been the rule in these cases that the day of better things, more intelligent treatment, and the frequent saving of life, is indeed an occasion of gratitude and pride to the profession. A recent writer in the *Journal of the American Medical Association*

* Starr: Brain Surgery.

tion cites the melancholy fact that, "Until recently it has been considered justifiable for the surgeon, after having made a gross diagnosis of fracture of the base, 'compression,' or 'concussion,' to stand by and see his patient die or become the subject of epilepsy, insanity, or permanent paralysis."

Surgeons have too long neglected the cranium as being a "*sanctum sanctorum*," and have been too content to shrink from and shirk the problems of exact diagnosis of recent intra-cranial lesions. All honor to the pioneers in this field, whose prompt and useful surgical work has saved the lives of their patients and makes us more alive to the hopeful possibilities which attend upon these cases.

We have come to know that a formerly fatal pressure may by prompt measures be relieved, a paralysis arrested or speedily terminated, and a life saved, and doubtless the time is at hand when no competent man will stand by and see his patient die from even a basal hemorrhage without at least adequate operative endeavor to avert a fatal issue. Exact diagnosis on the spur of the moment is often impossible, but the indications of what is immediately necessary in order to avert an impending death are ordinarily sufficiently plain; meantime, by the careful observer present symptoms can be accurately, if hurriedly, noted, and systematized to give ground for the later diagnosis.

Questions of concussion and compression will at once arise. Concussion probably means to the surgeon nothing short of laceration of brain substance, with necessary involvement of at least some small vessels. If compression is indicated, is it from extradural or from intra-dural hæmorrhage? If the former, it is more than likely that we have a rupture of the middle meningeal artery, and the accumulating clot should be speedily removed. A period of consciousness between the two periods of unconsciousness is said to afford good ground for suspicion of middle meningeal hæmorrhage, although no positive and conclusive diagnosis can be established between a hæmorrhage from a cerebral and that from a meningeal artery.

The condition of the pupils, whether dilated or contracted, equal or unequal, responsive

or sluggish, is to be carefully noted, as also the patient's mental condition, the nature and frequency of respirations, apparent or actual paralysis, either facial or of an extremity, condition of reflexes, etc. Keen considers the intervening period of consciousness as of great value in determining the diagnosis, especially between concussion and hæmorrhage, and calls attention to the fact that in concussion the unconsciousness is not so deep but that the patient may be temporarily aroused—unlike the coma ensuing upon compression.

Some of these problems confronted me in the following interesting case, in which, there is no doubt in my mind, I was by prompt trephining enabled to save the patient's life:

On the morning of February 20th, 1896, John S—, aged 27, strong and healthy, was engaged in hauling up by rope and pulley a bundle of 1½-inch gas-pipe, three to six feet in length. When the bundle was four or five stories above him, one pipe in some way slipped out and falling struck him upon the head. He became at once unconscious, and was quickly sent to a hospital, where I saw him just after his arrival and probably not over twenty-five minutes after receipt of injury. There was complete coma, stertorous breathing, Cheyne-Stokes inspiration, with so long an interval between the rhythms that each time those who stood by thought life had fled. The right pupil was widely dilated, and the left contracted. There was a large lacerated scalp wound to the left of the median line in the posterior region. Hastily exploring this, I could find no depression, no line or fissure of fracture as far as I could reach. Pulse was full and slow, 40 per minute, growing poorer in quality.

Here, clearly, was a man likely to die at once from intra-cranial compression unless speedy relief was afforded. But there was no fracture, no apparent paralysis present to guide in localizing a site for operation. I hastily reasoned that the site of a severe blow was evident, and that tissue underneath had likely sustained such injury that some hæmorrhage and consequent clot might be there and be easily accessible for relief. At the same time the dilated pupil on the right side and the greatly modified breathing strongly intimated that the hæmorrhage was far more likely basal and on the right side; but the localizing symptoms were not sufficiently exact, and I therefore adhered to my first and quickly formed purpose to trephine under the site of the injury. Five minutes

after I first saw the patient I proceeded to trephine.

The disk of bone removed was but a small one, and I could not say that the hæmorrhage from its site was profuse; but it at least served the purpose of allowing better accommodation for the increased intra-cranial contents, and so relieving pressure. Just following the operation, while I was carefully watching the pulse, the patient distinctly and forcibly moved both arms and legs. Respiration very speedily improved in character, the pulse soon rose to 56, and later to 60, where it remained for some time, going later to 72.

Though he was at no time during two days entirely conscious, and was for a week quite lethargic, improvement was constant. Return of consciousness developed the fact, already suspected, that there was total inability to move the right arm or leg; the paralysis involved the right side of the face but slightly.

February 25th, Doctor Nancrede saw him with me and advised trephining over the right-arm centre, if there was no improvement at the end of a week.

Sensation was only very slightly impaired over the right side (the patient thought not at all), and he localized excellently; a slight plantar reflex could be detected, but none in the hand. The patellar reflex was exaggerated. He complained of some headache each day, especially on the left side, but was otherwise quite comfortable.

March 3d, I trephined over the centre for the right arm, removing a button of bone an inch and a half in diameter. The dura bulged quickly and forcibly into the wound. Such bulging Horsley regards as an indication of the existence of pathological intra-cranial tension. No evidence of any extra-dural hæmorrhage being found, the dura was carefully incised and laid back. The brain was apparently normal in color, save at one spot, where the tissues were slightly discolored as if a small hæmorrhage might have here occurred and been absorbed—the evidence was not, however, sufficient to be deeply significant. That evening he thought his headache was less, but no motion was possible on right side. His condition continued comfortable. Three days after the operation his wife noticed that when he yawned hard there was a contraction of the right hand, an observation which I later confirmed and which I am still at a loss to satisfactorily explain.

March 8th, his temperature was 99°, pulse 74, pupils equal, tongue clean, bowels sluggish.

March 14th: Felt better; seemed clearer and was conscious of improved mental con-

dition. He had now been able to control the evacuation of the bladder for a week, the catheter having been necessary for fifteen days subsequent to injury. A more decided plantar reflex of the right foot could now be excited. When I stood away over at his right side as he lay in bed, he had diplopia; but I later tried it again in the same position, when vision appeared to be normal.

March 16th: Experienced a feeling of dizziness on long-continued effort to look to the right. He pulled his right leg from my knee onto the bed, showing a return of adduction. There was as yet no movement of the hand.

March 23d: Astonished me to-day by giving quite a vigorous kick with right leg and putting right hand and arm above head; could lift right hand voluntarily, but could not move fingers.

March 27th: Had gradually improved, and now walked with support to and from the bath-room. Still no use of fingers.

April 1st: Could walk without support, but threw the foot awkwardly and was apt to stub his toe. His gait was markedly hemiplegic. Could flex but not extend fingers.

April 5th: Walked out, using the crutch but little; showed marked improvement.

April 16th: Examined by Doctor Don M. Campbell, who found ocular muscular tension about normal, essentially normal fundus of each eye, and normal field of vision for each eye.

April 21st: Examined by Doctor Neff, of Pontiac, who found gait markedly hemiplegic, though improved. Patellar and arm reflexes exaggerated, especially on right side. Spasm, though not constant, of muscles of arm and leg. Pupils slightly unequal, right larger. Constant improvement in motor control. Mild faradic current to all the muscles of right side for five minutes daily.

April 23d: Some source of irritation kept up the discharge from the operation wound. I cut down and thoroughly scraped the tissue, but found no roughened bone, and the disk was apparently firmly united to the surrounding bone.

May 12th: I was again forced to cut down, and this time found the disk loose and becoming carious from edges, so removed it, ten weeks after first replacing it. Were I again to replace such a disk of bone, I would adopt the plan which McEwen recommends, of comminuting it before replacing. Healing and entire closure promptly followed the removal.

Improvement in motor control is now constant and quite satisfactory. He can pick up a pin with the right hand, and write, after a

fashion (as may be noted from accompanying cut). Fine motions are, of course, as yet quite difficult, but the hemiplegic character of his gait is fast diminishing, though he will doubtless long (if not always) carry some traces of it.

John Charles May Esq.

I should judge the grip of his right hand to be now at least half that of his left, and he can strike quite a strong blow with the right hand.

I expected to be able to exhibit this patient to the Society, but unfortunately he has returned to his former home, where he intends to engage in light business until he regains strength for more active work.

Under the old plan of treatment this man would have speedily died. Though all traces of his injury are not removed, his life is saved, his gratitude earned, and he is in condition to probably win for himself a fair livelihood.

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WHAT MADE THE CURES?

BY EPHRAIM CUTTER, M.D., LL.D.

Case 1.—Some years ago a noble lady, wife of an ambassador, while her husband was giving a diplomatic reception at Washington, suddenly fell insensible. Her subsequent ill-health and inability to "receive" led him to seek a resignation and return home. Medical aid was sought without avail until a subinvolute uterus three and a half inches deep was discovered. A vector of iodoform, applied once, was followed by a reduction of the uterine cavity to two and a half inches. A restoration to health followed, so that subsequent receptions passed off smoothly and the minister plenipotentiary retained his post.

Case 2.—In 1862 the writer brought from Europe some iodoform. Soon after, a man sought aid for a syphilitic leg ulcer which had perpendicular edges, a dry base, was round, about the size of a half-dollar, and so exceedingly painful that he had been unable to sleep for several days and nights. The impression made on the attendant physician

was, that the ulcer had been disturbed too much, or rather that too much had been done for it, thereby interfering with the healing process—one cannot expect beans to grow if they are pulled up by the roots daily to see how they are getting along. He was ordered to place the leg across a chair so that the ulcer would lay flat and uppermost; the ulcer was then filled full of iodoform, to the amount of at least one drachm; a strip of lead plaster two inches wide was laid over the iodoform and ulcer, wrinkled so that there was a chance for the escape of pus and for ventilation; and strict directions were given to let the sore entirely alone until the next visit, which was purposely delayed for three days, when the patient said he had been at once relieved from pain, had slept well, and felt much improved. On removing the plaster the ulcer was found healed over two-thirds of its surface with sound skin! Doctors J. H. Salisbury and R. J. Nunn have had like experience.

Case 3.—In 1882 a young man was advised not to make an application for life insurance, because he presented evidence of fatty degeneration of the kidneys. He was then treated on the Salisbury plans—meantime continuing his business—and was pronounced cured in 1884. In 1895 he made application to the same medical examiner, was found free from disease, and was accepted in the very same company by which he had been practically rejected thirteen years before. He is now in active business, in splendid health.

Case 4.—Some years ago a clergyman applied for a life insurance, but was rejected because of diabetes mellitus. Two years since, he came under my care. A year's treatment was enough to remove the evidence of diabetes. He then got his life insured, and is now in Europe on a vacation.

Case 5.—In 1890 a man 66 years of age was told by an oculist that he would be blind from glaucoma. My father had been his family physician, and later myself. Of course such a serious case was remarked on when we by chance met—we did not then live in the same town. Taking into consideration the fact that most organic eye diseases come from carbohydrate food in excess, from the proteid disease called dyspepsia, or from some form of fatty degeneration (judging from Sir Benjamin W. Richardson's and S. Weir Mitchell's synthesis of production of cataract in both eyes of a frog or guinea-pig, in less than ten minutes, by hypodermic injections of a drachm of a saturated watery solution of common sucrose or cane sugar), the

writer, anxious to do good with his knowledge, said: "Colonel, do you wish to save your eyes?" "Yes, I do," was the reply. He was then advised to live on a diet that eschewed carbohydrates. Curiously, this street-volunteered advice was followed. In 1892 he said his eyesight was improved. "Stick to diet," was the advice. In June, 1896, he declared his "eyes were as good as they ever were," and that he was about giving up the use of glasses!

Case 6.—Some twenty-five years ago a middle-aged man was turned over to the writer by Doctor Wm. F. Stevens, of Stoneham, Mass. It was a case of chronic erysipelas involving the right leg, traveling up the limb and invading the knee. Free incisions in the foot down to the plantar fascia, and in the leg down to the bone, failed to arrest the disease. The alternatives of amputation of the thigh, with possible death on the table, and inevitable death without the amputation, were presented to the patient, who chose the operation. With a very feeble pulse of 130 he underwent amputation and came out successfully. Although care was taken to leave sufficient material for flaps, owing to his low vitality the flaps sloughed, and a conical stump formed with about one inch of the projecting femur necrosed. It now became necessary to perform a secondary amputation. In order to save tissue, the projecting femur was enucleated and severed by a chain saw. The vessels were ligated, and all the assistants but one went away. Not long after, secondary hæmorrhage occurred. It was now dark, but the wound was reopened and the vessel tied successfully. The man recovered, and lived fifteen years, to die of some other disease!

One very interesting diet question was settled, as far as this case was concerned, viz.: "Is alcohol food?" This man's sole diet for ninety days, at one period of this serious illness, was a pint and a half of whiskey daily. This is a strict fact! Physicians have been blamed for making inebriates by prescribing alcohol: but this man was not made a drunkard, for when he was able to give up the whiskey he could not take a tablespoonful without its "going to his head," and it was moreover very distasteful. When he was using it as above, it never disturbed his head; it fed him, and he was satisfied. Now if alcohol was not a food in this case, what was? Healthy dogs and men without food rarely live forty days, but this man, all but

dead with chronic erysipelas, lived on alcohol for ninety days! It seems to me alcohol should be used as a medicine. I am very sure that he would have died but for the whiskey. It should be added that he rejected every other solid or liquid food but the aforesaid whiskey.

Now what made the foregoing cures? Our foremost American gynecologist, referring to Case 1, stated that it was the most remarkable he ever knew. There was justification for this statement. Certainly there is not another article of the *materia medica* that has such a history; if there is, let it be known, for it is facts, not opinions, the profession need. The sedative and healing virtue of iodoform never was better shown. It certainly does relieve hyperæsthesia, pain, and disturbed neurotic action. Was not the cure wrought by removing these, so that Nature then had a chance to restore equilibrium, or rather to furnish force whereby the subinvolution was removed, as it ought to have been after the birth of the child which was at that time about eighteen months old? Certainly the metamorphosis by metabolism, induced by the iodoform in this way, made the cure. And yet, after all, Nature cured, because after the said conditions were removed by the iodoform, no cure would have been effected without her efforts. In other words, Nature was trying to cure, but hindered by the subinvolution; she did not have dynamos enough to run the system.

As to Case 2: The end aimed at was the relief of pain, but more than this was had. The sound skin was replaced where for months and years it had been absent, and this with wonderful rapidity. It is impossible to conceive that iodoform should of itself produce sound skin directly. We can say it did so indirectly by removing pain, soothing the irritated nerves, and giving Nature an opportunity to do what she had for so long endeavored to do—heal the solution of continuity. Had iodoform been put on a dead man's sore, such a healing would not have happened,—though recent experiments show that arsenic will travel in the dead, from the rectum to the brain *via* the spinal cord alone, by imbibition. So here it was the *vis mediatrix naturæ* that cured.

In Case 3 there was a removal of causes of fatty degeneration, by the withdrawal of carbohydrates and fatty foods which retarded functions mainly by the action of the gases produced in the alimentary canal; next, by giving food which conferred the maximum of force with a minimum of expenditure in assimilation, and which conferred also the power to lay down all the body tissues healthily. Then Nature, given a chance, restored healthy tissue in place of the fattily degenerated. I am quite aware that this is new doctrine, and not generally received, but advisedly and in the moritural state this is asserted as a truth that has come into others' experience beside my own. It is an American contribution to medicine far exceeding in value the X rays which have dazzled the whole world. This man was cured by Nature's transforming—or, if you like the Greek better, metamorphosing or metabolizing, or, in good old Anglo-Saxon, changing back to health—parts of the body which had turned into fat in one or more of its forms.

In Case 4 the system was put in such splendid working order that Nature arrested the abnormal production of sugar by the liver. The medicine the man took was oil to the machine.—Oiling locomotives will not make them run, but a fired-up locomotive cannot run unless it is oiled. The presence of sugar in the urine is evidence there is not force enough in the body to properly run it. Indeed, most diseases, save those from parasites, make evident the same idea,—and it may be doubtful as to parasites, since a perfectly healthy body does not, as a rule, tolerate parasites that can produce disease. It used to be taught that children have worms *because* they are sick, and this is quite near the truth.

As to Case 5: No medicines were given, nor any attendance save that of the oculist. Certainly Nature was the healer. When the causes were stopped, then she righted the local lesions. There is a truth of tremendous importance to ophthalmology indicated in this case. Nature formed the eye, with its most marvellous powers of perceiving incomprehensibly rapid vibrations of light. It has lately been asserted by the Philosophical Society of Great Britain, that the vibrations of green light are seventy thousand million per second! If Nature has created such instru-

ments of precision, cannot she likewise cure them?

Case 6 certainly shows the good of medical and surgical interference. It was a very bad case. Good nursing was an important factor, and what is good nursing but simply making a realization of the powers of Nature left to work with? Surgery helped by removing burdens from the forces of life, or, to use another simile, obstructions from the path of life. Some would say that the man had a good constitution, but, after all, do not these expressions come back to Nature as a source of power? Does the physician do any more in his line than the farmer does to procure results in agriculture? All the planting, cultivating and husbandman's care avail nothing unless Nature does her work unmolested. The farmer can easily destroy his crops by bad management and want of care. Is it not so with the physician? And what is Nature but an expression of Divine Providence?

The word *nature* means "born." To be born implies something antecedent to the thing born—a father and a mother. The good old book says, "In him we live and move and have our being." So we may say of these cures, that they are done by God acting through his agents. The greatest physician in the world was our Lord Jesus Christ, who cured all manner of sickness and disease by a touch and a word.

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A CASE OF HÆMATEMESIS.*

BY W. R. BLAILOCK, M.D.

Hæmatemesis, according to the best authorities, may be idiopathic, vicarious, or traumatic; may result from disease situated out of the stomach, as ulcer of the duodenum, disease of liver, spleen, or heart, or from changes in the blood, eroding ulcer or ulcers, or cancer, of the stomach—the two latter being the most frequent. It may be doubted if idiopathic hæmorrhage, in the sense of epistaxis, ever occurs in the stomach, though vicarious hæmorrhages therefrom occasionally occur in females. But it is not the pur-

*Read before the Texas Medical Association.

pose of this paper to enlarge upon etiology, and the only reason for the brief *résumé* just given is to show that the principal causes of gastric hæmorrhage have not been overlooked in the following case:

J. G——, merchant, aged 42, twenty years ago had a severe attack of continued fever, and four years later another; and in the interval—one year before the last seizure—he suffered with dysentery. These constitute the only serious illnesses he ever had up to the time he suffered from gastric hæmorrhage.

Family history shows that his mother died at the age of 55 from a pelvic tumor; and one sister had a uterine tumor supposed to be a mural fibroid, but subsequently gave birth to a child, since which she has been in good health. A younger brother has general dropsy, supposedly a sequel to chronic malarial fever. Three brothers and three sisters in addition to the two mentioned are living and in good health.

He has always been strictly temperate, never using whiskey nor malt liquors, but has smoked cigars occasionally, though not regularly. In diet he has been prudent, except for two or three months preceding the present illness, when he began to take his meals irregularly.

During the forenoon of December 3d, 1895, he was seized with distress in the stomach, which continued to grow worse until night; he described the pain as of a "gnawing character situated deep down to the right"—in other words, toward the pyloric end of stomach. Tongue clean; temperature 100°; bowels had not moved during the day.

A clyster of warm water and soap was ordered, that secured a few copious evacuations; also morphine hypodermatically, and calomel in one-fourth grain doses, to be taken at intervals of two hours, and followed by a dose of salts next morning; a few doses of quinine were to succeed this medication. The calomel and salts acted thoroughly, the stools being dark green in color.

December 5th, about the same conditions were found, and the treatment was duplicated.

December 6th: Bowels moved well, but the motions were less bilious in color; pain and uneasiness in stomach not so pronounced, but present.

December 8th: Bowels moved several times; slight accumulation of gas therein. Prescribed bismuth, acacia, and tincture of opium.

December 9th: No fever; bowels checked; still discomfort in stomach.

December 11th: Feeling well and taking nourishment; temperature normal.

December 12th: After sleeping well during the previous night, was sitting up leaning or resting his head on the right hand, when a short lancinating pain started in the stomach, followed by the vomiting of a large quantity of blood; temperature fell to 96°, and remained subnormal several hours. Bowels moved on the 14th, the stools being black and offensive. After this hæmorrhage all uneasiness disappeared from the stomach, temperature remaining normal. He lay on right side, with thighs flexed at right-angles to the body. On assuming dorsal decubitus or inclining to the left side, an uneasy feeling in the stomach was induced.

December 19th: While lying motionless in bed, and without other warning save a sharp pain well to the right of the stomach, and deep down, another hæmorrhage occurred. In a short time dark blood was ejected from the stomach, the vomiting continuing at gradually lengthened intervals for several hours. Temperature was lowered to 97.5°, but on the next day registered 100°, where it remained for only a brief period and again fell to normal. On the 20th dark bloody fæces were passed.

On the 23d and 25th of December, and January 4th, violent pains were felt (the patient said his stomach was "drawn into a hard mass or knot"), followed by dark bloody stools on the second day. No vomiting followed either of these attacks, although nausea attended each.

January 8th: Very severe hæmorrhage, as was evidenced by vomiting a large quantity of dark clotted blood succeeded by the usual dark bloody alvine discharges.

January 16th: Slight pain and contraction of stomach, followed by vomiting of dark blood and the usual fætid dark or black stools.

February 9th: Was feeling unusually well—had gained strength steadily since the last disturbance, which occurred on January 16th,—when his face grew suddenly pale, and severe pain rather too low down for the stomach was complained of. I lifted the cover and found the rectus muscle on the right as rigid as a board, while the one on the left was not in the least contracted. After a short interval, perhaps thirty seconds, the muscle on the right relaxed, and very soon thereafter the muscles on both sides of the abdomen became involved in clonic convulsions. In the course of a minute or two the stomach was contracted into a hard ball and forced back against the spinal column; the contractions began at the pylorus and advanced toward

the cardiac end until the whole organ seemed to be involved. This, in a very short time, was followed by vomiting, the red blood becoming gradually darker and clotted until the hue was nearly black. This vomiting persisted for three days, and ceased only after the ingestion of bismuth subgallate and predigested beef-juice. This attack, like all the others, was followed by black discharges composed mostly of blood which had been changed during passage through the bowel.

March 15th: Great improvement in strength; patient sitting up some every day, and occasionally walking across the room. The enemas usually resorted to, to secure discharges from the bowel, had for two or three days failed to accomplish their purpose, but a severe pain in the bowel was followed by copious alvine discharges. Emesis succeeded, the ejected material being at first a tough mucus, then dark and grumous, apparently blood changed by gastric juice; this continued eight or ten hours, but apparently had no effect upon the patient's strength; no dark alvine discharges followed.

In this case the most painstaking examinations of the heart, liver, spleen, lungs and duodenum have failed to reveal anything abnormal. The stomach was not enlarged, and only a mere suspicion of tenderness over the pylorus was elicited by palpation. Physicians from Waco and Fort Worth, as well as others in McGregor, saw and examined this case with me.

From the first hæmorrhage, which occurred on December 12th, to February 9th, when one of the most severe of the whole series occurred, food was given mostly by rectum; what was taken by the stomach was predigested and absolutely liquid. For the four weeks preceding February 9th no food was given by stomach.

Absolute quiet, or as near this as possible, was maintained from December 12th to February 9th. The remedies prescribed were: For the hæmorrhage and nausea, crushed ice, morphine and ergotine (hypodermatically), red gum tablets, and fluid extract ergot with tincture opium—the crushed ice and morphine gave best satisfaction: To prevent extension and promote healing of ulceration, bismuth subgallate was given in doses of five grains three or four times a day, and bismuth subnitrate ten grains every two hours washed down with Vichy water; beta-naphthol and bismuth were tried separately three or four

times a day, in five-grain doses; nitrate of silver and opium, though tried, disagreed so markedly that they were abandoned. After the severe hæmorrhage on February 9th, pills containing one-half grain silver nitrate, one-fourth grain ergotine, and one grain powdered opium, were given every four hours, but there was so much nausea and retention of urine following that they had to be discontinued.

In the preparation of food for rectal alimentation, owing to failure to secure a reliable pancreatic preparation, scale pepsin combined with bicarbonate of soda was employed, but the amount of gas generated thereby, which appeared to pass upward into the stomach, and the frequent alvine discharges (although ten to twenty drops of tincture opium were added to each portion), made it necessary to abandon this measure. Subsequently a good pancreatin was secured—one which digested tough beef with great promptness; the food prepared therewith was found to be fairly unobjectionable and moreover to be taken up and appropriated by the bowel. After February 9th, at which date rectal alimentation was abandoned, pancreatin was employed to predigest the food for the stomach.

In the early management of this case, covering a period of two months, the regulation treatment for gastric ulcer was adhered to, and for the space of one month previous to the most copious hæmorrhage of the series nothing was given by stomach. After this, beginning with the decline of the hæmorrhage, liquid food was ingested, and in a few weeks the patient was advised to assume the erect posture for a short time every day. Food has been taken by the mouth up to this writing (April 16th), notwithstanding the slight unpleasantness on March 15th. General faradization was employed for a period of three weeks, beginning about February 20th, for the purpose of strengthening the muscles. The amount of food now taken during each twenty-four hours is about two pounds—one pound of beef, and one pound of gruel prepared with cracked wheat and milk; and during the two weeks prior to April 16th, peptonization was gradually discontinued and a more extensive dietary allowed. On March 25th the patient weighed

121 lbs.; April 15th, 131 lbs.—a gain of ten pounds in three weeks; latterly he has taken daily exercise, both walking and riding.

In gastric ulcer it is claimed there is always distress and often vomiting after the ingestion of food. A noticeable feature of this case was absence of distress and vomiting after taking food; in fact, food had a quieting effect.

Malignant disease of the stomach sometimes begins without other warning than a profuse hæmorrhage from that viscus, but I should expect in such a case one or more of the usual accompaniments of carcinoma—a tumor in the stomach, progressive emaciation, discoloration of skin or eyes, swelling of limbs, or some involvement of lymphatics—none of which occurred in this case.

Inability to lie on the left side, or even comfortably on the back, from an early period of the illness and until latterly, and the fact that some discomfort is yet induced when the patient assumes these positions, point to some adhesion of the stomach—to either the pancreas, liver, diaphragm, or lymph-glands.

This was evidently a case of gastric ulcer located posteriorly in the pyloric end, that perforated the wall of the stomach and adhered to one of the structures just enumerated, in which the usual symptoms—burning and vomiting after the ingestion of food—were absent. Rectal feeding, while it maintained the strength fairly well, did not contribute much of anything to the healing of the ulcer, as the worst hæmorrhage occurred at a time when the stomach had been empty about one month.

After a return to stomach-feeding with predigested food, steady improvement followed.

* * *

June 21st: At this date patient is apparently well, and takes all food without peptonizing.

McGregor, Texas.

“STORE TEETH.”

It is said the best artificial dentures are now made from paper, and so stable as to wear a lifetime.

THE MEDICAL AGE.

A SEPT-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., SEPTEMBER 25th, 1896.

Editorial.

THE DAILY PRESS IN RELATION TO CRIME.

It is important that all manner of crime, suicides, etc., be recorded in the archives of the municipality, county or State in which they are committed, for ready reference in case of necessity, as mortuary statistics are recorded and preserved by health authorities; but that elaborated, exaggerated, even truthless reports, with flashing headlines and other conspicuous accompaniments detailing every murder, suicide, hanging, seduction, attempted rape, elopement, robbery, scandal, divorce, etc., etc., are accorded simultaneous publication in almost every great secular daily of the country—to poison the public mind, corrupt public morals, to act by the influence of example upon the morbid and melancholic as an incentive to the commission of other similar crimes, to suggest to and familiarize the public with the *modus operandi* by which such crimes have been committed, thus stimulating and perpetuating lawlessness, licentiousness, and the customary concomitant evils and inevitable sequelæ, especially in those individuals possessing susceptible, excitable natures and inherent criminal tendencies—appears in the nature of a national calamity, which should by some means be suppressed. The evil has been nourished and stimulated until such reports are now generally considered as legitimate reading matter; they are published even to the minutest detail, such as would obtain were the composite matter related to some scientific, hygienic, or sanitary subject; and in this fact lies the most unfortunate

feature. Little harm would perhaps result if only brief notices were inserted, but it is the unlimited freedom exercised, the minuteness of detail as to the method employed in the commission of crime, the exaggeration depending upon the imaginative genius of the reporter delegated to this class of work, which must be recognized as the most deplorable constituent.

The question has been aptly asked: "Why does the secular press publish such material, almost to the exclusion of reputable, truthful news items and matter that would have a tendency to elevate public morals, furnish enlightenment for and add to the knowledge and well-being of the community?" To this, several answers have been given: It is said the publisher must present something that will cause each issue of his paper to meet with rapid and extensive sale—for competitive and financial reasons he claims this to be imperative. Then, again, the public has been educated to expect sensational news, and the publisher endeavors to satisfy the demand. But public education in this respect has been gradual and progressive: matter which would have passed as sensational a few years ago now falls flat and stale, failing to satisfy public demand; in fact, to-day the more highly colored the material the more ready and remunerative the sale. Where will this end? What will be the character of the secular press a few years hence? The publisher answers—"Whatever the public demands." He apparently has no interest in trying to educate the public on other and better lines. Is the public, then, in a state of progressive degeneracy; and if so, is not the daily press largely responsible for the retrogressive metamorphosis?

The daily newspaper reaches all classes of society, from the highest to the lowest; it is perused by wives and children, though often more demoralizing and productive of more evil than the foulest yellow-covered monstrosity ever perpetrated by the ingenious imagination of an irresponsible author; yet the daily press is admitted to every home in the community and received with open arms, while the lesser evil, the yellow-backed literature, is denied admittance. While we would not be understood as advocating or encouraging questionable literature in any form, or

favoring its introduction into the home and extensive circulation in this or any other country, we contend that, judged by its pernicious effect upon the morals of any community, the daily press is the chief offender.

As an incentive to suicide, the effect of the daily press may be emphasized by the following: Recently, in a neighboring city, a man aged fifty-seven years, being despondent, out of work, and "tired of life," committed suicide by swallowing a quantity of carbolic acid. The morning's paper published the customary two- or three-column account of the unfortunate circumstance, with flashing double "scare" headlines—chiefly gratuitous on the part of the ingenious and imaginative reporter, life being extinct when the suicide was discovered, so that *facts* were absolutely unobtainable. What was the result? In this same city, during the next succeeding seventy-two hours, five additional human lives were cut short by identically the same method, plus in some instances the additions outlined by the reporter, the subjects ranging in age from nineteen to sixty-five years. Is not, then, the assertion warranted, that the depressing effect of the glaring published account of the first suicide, upon the morbid and impressionable minds of the additional five, prompted them to end their existence and to adopt the same means; and may we not also assume that in the first instance the man in a fit of despondency was actuated to the deed by having read in the daily press the report of a suicide by similar measures?

As already stated, the newspapers are not content to publish brief notices of local crime, suicide, etc., but the circumstances are magnified and distorted until a proper degree of sensationalism is reached, in proportion to the intensity of the pernicious and lying element and the prominence of the individual or persons connected therewith, and then transmitted to every daily in the land; thus the demoralizing effect, instead of being confined within the narrowest limits, is made general!

Many other instances might be cited as evidence that suicide has undoubtedly been actuated by the daily press, but further illustration seems unnecessary. It has frequently been remarked that suicides "come in schools," following the same identical meth-

ods, whether aided by pistol, knife, noose, poison, or what not; and if the influence of the daily press in promoting the same is what it appears, or is assumed to be, is it any less criminal because intended to minister to appetites depraved? Is not the public press thereby guilty of a degree of murder? Can it be doubted this is the influence that causes suicides to so frequently follow each other in quick succession, especially when it is found the death-dealing method, and even the anatomical region attacked, are identical in each instance? Surely such instances are of too frequent occurrence to be considered merely matters of coincidence.

And this refers with equal force to a long list of crimes. It is by no means uncommon for robbery, burglary or other criminal accidents in any one certain locality to be quickly followed by others. Attempted rape, seduction, murder, are doubtless influenced to a greater or less extent by suggestive and exaggerated published accounts; and is it not true that no small percentage of these reports are entitled to be classed as obscene literature, and thus be brought under the jurisdiction of laws governing such matters—for details *suggested*, leaving the working out thereof to the imagination, are far more dangerous in their prurience than a bald and nasty account. If this be admitted, what excuse can be offered that no action has been instituted with the view of suppressing this class of literature? Do not, or cannot, the laws be made to apply to the secular press as well as to other publications? And yet the most pernicious issues of the secular press are accepted for general and local transmission through the regular mails, whereas the same literature in another form would be rejected and the parties offering it prosecuted. Where is the justice, *de jure* or *de facto*?

The philanthropist, the moralist and the social reformer may suggest measures for suppressing evil, but something more substantial than mere suggestion is necessary to enforce actual suppression. The legal aspect may be threatening, but something more than threat is required to produce the desired results. That there are abundant reasons why the daily press should discontinue publishing elaborate reports of murders, suicides, and

other crimes, is patent to every rational or pure-minded person; but the means by which this may be accomplished are not so evident. Recourse to the law is probably the only measure of relief, as a publisher will not otherwise discontinue a practice upon which he claims his financial success depends. The question then arises: If the present laws are inadequate, cannot they be so amended as to universally cover the point at issue, making the discontinuance of such a practice imperative? Surely, if law-makers will grasp the matter with the proper spirit of determination, the evil can be suppressed. Capable assistance could be rendered by joint action of the moralist, the statesman, the philanthropist, the social reformer, and the physician. By united and determined effort, an improvement in existing conditions might be effected, but without such combined effort little good can be accomplished.

THE X RAYS AND CHARLATANISM.

Nothing apparently escapes the eye of the quack; he is rich in expedients, oftentimes far more so than his better educated and more honest brethren in medicine. Only a short time since a number of French and American medical men mysteriously announced to the public that the X ray possessed various valuable and therapeutic virtues; and the claim was even made it was capable of destroying microbes which had found their way into the circulation, even those within the lungs; and later MM. Lorney and Genoud assured the Academy of Sciences that as a result of their (as claimed) "numerous and successful experiments," they had discovered that tuberculosis might be mitigated, even arrested, by the influence of these rays. This statement, however, was speedily and categorically denied by a number of European scientists, who subjected no less than sixteen varieties of bacteria to the action of the rays and discovered that these microscopical growths merely bask therein—if anything, perhaps encouraged thereby.

Now comes another enterprising Frenchman—M. Gaudoni, from Dijon—who, having read in some of the American medical jour-

nals that the Roentgen rays, if caused to penetrate the human skull, utterly destroy the roots of the hair, making havoc of even the most luxuriant tresses and leaving the patient bald for life, immediately hurried to Paris to make a fortune by application of this wonderful discovery. He was not, of course, simple enough to fancy that the masses would crowd to his ante-chamber and pay him royally for inducing baldness, for nature has already provided numerous cheap ways of acquiring this particular result; but he knew that a considerable proportion of his countrywomen were possessed of a fair share of that vanity which, though a constant attribute of the sex, does not anywhere perhaps flourish so universally and ostentatiously as in the Gallic republic. The number of those who, if not precisely born into the world with soft and silky moustaches, are at least early endowed with this hirsute appurtenance, is considerable; and the gift, although eagerly yearned for by masculine adolescence, is not as a rule appreciated by marriageable or married young women, or by their male admirers. Gaudoni therefore resolved to use the Roentgen rays as a depilatory to remove the superfluous hair from the lips of these afflicted Frenchwomen, and when needful from their chins and other parts of the body where such growths proved too exuberant. Having made his benevolent intentions known, he was not long in getting fair—or would-be fair—customers. They flocked to his ante-room in great numbers; they awaited their turn with exemplary patience, and cheerfully paid the fees—which, it is unnecessary, perhaps, to add, were not of the cut-rate variety; and in return the invisible rays were permitted to caress their full-grown moustaches and incipient beards. Unfortunately, however, these hirsute appendages gave no evidence of vanishing, and one fair damsel who had been under the Roentgen treatment for a long time—so long, indeed, that her patience was exhausted—had the supreme impudence to demand a return of the fees paid. Simultaneously another lady, a well developed widow from the Provinces—"one with expectations"—whose moustache and beard ought to have made her a fortune at country fairs, circus side-shows, and dime museums,

demanding not only a return of the fees she had surrendered, but ample interest thereon, threatening in case of non-compliance to turn the tables and epilate the operator by means of a depilatory she had found thoroughly infallible—exhibiting ostentatiously her ten superior digits. She went further; she declared she would proceed to operate on the exiguous hairs of his devoted head and face that very instant, unless the francs were forthcoming without further circumlocution.

What can man do under such circumstances—especially a Frenchman, who is always supposed to be devoted to the sex—when so tenderly besought by a countrywoman? The upshot was that "Doctor" Gaudoni felt it incumbent upon himself, as a gallant son of Gaul, to appease these infuriated graces, being aided in his conclusion, perhaps, by the discovery that inquiries were being made into his methods by the Prefect of Police. He consequently hurriedly retired from business with such fees as he had accumulated, and, although his wealth is not perhaps enhanced to the degree expected, he certainly is materially richer in the matter of wisdom acquired through practical experience.

There is now an opening on this side of the water for some enterprising charlatan—preferably a German or a Frenchman—who, perhaps, owing to a lax application (not to say criminal misapplication) of the laws, will be enabled to succeed better than his French confrère. Not that there are no women in this country possessed of the necessary talent—we had nearly said *talons*—to expose his game, but the majority of the fair sex of the United States have an utter abhorrence of making "a scene" and thus bringing themselves under the eye of the ubiquitous sensational reporter. The French fair ones, however, seem to rather enjoy a sensation, and, when they set out for anything of this kind, usually succeed in a superlative degree.

A NEEDED LAW.

In May last a new Act became operative in the State of New York, the purpose of which is for the better protection of workmen on buildings, and it is made the duty of Fire Boards and other departments to enforce the same.

By the provisions of this new law it is a misdemeanor for any contractor to arrange his work so that those in his employ will be exposed to danger of bodily injury. It compels builders to close all spaces on floors, except such as may be reasonably required for the men to work upon, and these to be filled as the work progresses.

This law is intended to enforce reform among builders who do not place proper safeguards about their men to prevent exposure to danger from falling timbers or other material used in construction. It devolves upon the chief officer in any city charged with the enforcement of the building laws, to enforce the provisions of this Act.

It would be well if a similar law were passed in every State in the Union, for it is well known that a large proportion of the accidents which find their way to infirmaries and hospitals are the result of carelessness on the part of either contractor or builder in not placing sufficient safeguards about the work. A few convictions under this Act, with adequate punishment added, will tend to materially lessen the numbers in the accident wards.

EDITORIAL NOTES.

Novel Anthropological Discovery.—

Recently, three miles from Waynesburg, in Southwestern Pennsylvania, a laborer while plowing struck a number of stones but a few inches below the surface, that proved to be graves of a character different from any heretofore discovered on this continent. In all, twenty vaults were found, each twenty-seven inches long by seventeen wide and twelve deep, and each covered with a stone slab forty-two inches long by three thick, twenty-eight inches wide at the head, twenty-four at the foot, and thirty at the widest part. All the vaults contained bone beads, some skeletons of birds, and one a small crescent-shaped ornament—the only bit of metal discovered; and each held a skeleton of diminutive size, doubled up so as to occupy about eighteen inches of space, with the head in an unnatural position and facing the south; under each skull was a turtle placed as if for a pillow. The graves were

arranged in the segment of a circle about four hundred feet in diameter.

Venesection.—

Any one who will carefully study papers by Doctors Wilks, Sutton, Markham, and Sir George Johnson, published in the *British Medical Journal* and *Medical Times and Gazette* at various periods since 1859, will be convinced, if he has not already been so with his own practice, that harm must be negatively done by those who will never bleed in any case, as it certainly was positively done by those who indiscriminately bled in all.—PROFESSOR W. CARTER, in *Liverpool Medico-Chirurgical Journal*.

Conscience and Health.—

"He that loses his conscience has nothing left that is worth keeping. Therefore be sure you look to that. And in the next place look to your health, and if you have it, praise God, and value it next to a good conscience, for health is the second blessing that we mortals are capable of—a blessing that money cannot buy; therefore value it, and be thankful for it."—IZAAB WALTON.

A "Chestnut!"—

The paragraph to the effect that *Capsicum annum* is a remedy for "black eye," and which appeared in THE MEDICAL AGE in 1889, is still "going the rounds," and has been credited to nearly every medical journal on this continent.

In mercy's name, let the poor thing rest. In the *argot* of Josh Billings, "'Tain't so!"

A Concession to the Sex.—

It is said that, under present New York laws, if a pharmacist has taught his wife or daughter to compound drugs and she has proved by experience that she can do so, the courts—if asked—must compel the Board of Pharmacy, in case of death of the pharmacist, or his permanent disability, to give the woman a certificate.

Gray's Anatomy.—

Lea Brothers & Co. announce a new and revised edition of this standard text-book, embellished with a large number of entirely new and colored illustrations.

Items and News.

Recent Archæological Discoveries.—

Professor Frank N. Cushing has just returned from Pine Island, laden with rare and interesting specimens, and bringing the story of discoveries which demonstrate the existence of a prehistoric people in Southwestern Florida and the neighborhood, who have left a multitude of mounds and other structures of conch shells, and whose works seem to furnish the key to much that was inexplicable in American archæology. He says this ancient people differed in many ways from any others hitherto known, but that they somewhat resembled the Swiss lake-dwellers in their mode of life, and that their state of culture was quite similar and equal to that of the mound-builders and the Mayas and other builders of the ruined cities of Yucatan and Central America. Innumerable islands were found covered with shell foundations, and some with structures covering hundreds of acres and rising fifty to sixty feet above the sea. A low mound, sixty feet in diameter, near Tarpon Springs, was thoroughly explored, and more than six hundred skeletons found, besides a large quantity of pottery, stone, and other objects of art. At Marco, near the southern end of the Florida peninsula, extraordinary painted tablets were found; also many carved wooden vessels, and implements and utensils of shell and bone. Sections of the shell islands made below the gulf-level showed them to be entirely artificial and the result of slow and long-continued building. The civilization developed on these islands is supposed to have extended southward to Yucatan and northward to the abode of the mound-builders. A notable collection of masks was found, put away in sets, each with an appropriate animal figure-head, doubtless designed for use by priests performing the myth drama. The shell structures of the Ten Thousand Islands, as well as those on the mainland, are covered with peat and dense growths of mangrove, cactus, and other tropical vegetation. The general plan is similar in all. There is a network of enclosures of various sizes, or ridges leading up to terraces crowned by gigantic mounds. A series of level-topped pyramids surround two or three lakes, from which channels lead out to the sea. The resemblance to the ancient cities of Yucatan is striking and instructive. The explorations made lead to the inference that the Ten Thousand Islands are nearly all artificial.—*Nature*.

Can Animals Talk?

When engaged in locating a railway in New Brunswick, James Camden, a civil engineer, was compelled one night by a very severe snowstorm to take refuge in a small farmhouse. The farmer owned two dogs, one an old Newfoundland and the other a collie. In due time the farmer and his family went to bed, the Newfoundland stretched himself out by the chimney corner, and Mr. Camden and the man with him had rolled themselves in their blankets on the floor in front of the fire. The door of the house was closed by a wooden latch and fastened by a bar placed across it. Mr. Camden and his man were just falling asleep when they heard the latch of the door raised. They did not get up immediately, and in a short time the latch was tried again. They waited a few minutes, and then Mr. Camden rose, unfastened the door, and looked out. Seeing nothing, he returned to his blankets, but did not replace the bar across the door. Two or three minutes later the latch was tried the third time. This time the door opened and the collie walked in. He pushed the door back, walked straight to the old Newfoundland, and appeared to make some kind of a whispered communication to him. Mr. Camden lay still and watched. The old dog rose and followed the other out of the house. Both presently returned, driving before them a valuable ram belonging to the farmer, which had become separated from the rest of the flock and was in danger of perishing in the storm. Now, how did the collie impart to the other dog a knowledge of the situation unless through some supersense unknown to us?—*Humane Educator*.

Bacteriology in a New Role.—

Little did Hellriegel, Wilfarth and Beyerinck imagine, when they announced that certain leguminous crops were able by means of root-nodules to fix the free nitrogen of the atmosphere, and that this was accomplished by the aid of particular bacteria contained in such nodules—little did they anticipate that a few years later a German firm would undertake to deliver, as an article of commerce, cultivations of such bacteria under the name of *Nitragin*, wherewith to inoculate, and so supply the wants of, various leguminous crops. This is, however, what Doctor Nobbe, the distinguished follower in the footsteps of Hellriegel, has rendered by his brilliant researches an accomplished fact. Pure cultivations of nodule-organisms suitable to the growth of no less than seventeen different varieties of leguminous field crops, may now be purchased. Each bottle bears a different

colored label, according to the crop for which it is destined, whilst the German as well as the botanical name of the plant is also affixed. About half an acre of land may be inoculated for half a crown, which represents the price of a single culture bottle.—*Nature*.

Miscegenation.—

A story, claiming to have its origin in the sacred press, is going the rounds of the secular press, about an Irishman and a Frenchman who were disputing over the nationality of a mutual friend. "I say," said the Frenchman, "that if he was born in France he is a Frenchman." "Begorra," said Pat, "if a cat should have kittens in the oven would you call them biscuits?"—*Medical Standard*.

[This appears to be a version of the Duke of Wellington's famous retort, when he was claimed as an Irishman—"If a man is born in a stable, does he become a horse?"—ED.]

Curious Pharmacy.—

Toward the end of the sixteenth century Sir Henry Unton was sent on a mission to the French king in Paris, and there became ill, whereupon the court physician gave him a "*confectio alcarmas*"—compounded of musk, amber, gold, pearl, and unicorn's horn, "with pigeon's dung applied to his side, and all other means that art could devise, sufficient to expel the strongest poison, and he be not bewitched withal." It is almost needless to add that after the administration of this extraordinary medicine the ambassador promptly expired.—*British and Colonial Druggist*.

Vaccination.—

The opponents of this most beneficial measure have only to enter Italy and witness the frequent outbursts of smallpox, and its ravages among the rural population, to be taught a lesson of its value. Blindness from smallpox, almost totally stamped out in England, finds frequent victims still in Italy, where vaccination is only done sporadically among the country people.—*Journal of Medicine and Science*.

Dumas' Wisdom.—

The veniality of a woman is the punishment of those who buy her.

Men have the right to speak ill of women, but never of a woman.

Mathematics—"Addition."—

Now 1 and 1 are 2, 'tis true;
But if the 2 do marry,
Then, in a year, 'tis also clear
They're 2, and 1 to carry.

Book Reviews.

A MANUAL OF NORTH AMERICAN BIRDS. By Robert Ridgway. Cloth; 8vo; pp. 653; 124 plates. Price, \$6.50. J. B. Lippincott Co., Philadelphia.

This work has reached a second edition, which is a pretty fair judgment of its character. It may be said, moreover, that it is the most complete manual of North American birds that has ever been published, the author being to-day the foremost and best ornithologist and zoologist in the United States. One feature which renders the volume more than ordinarily valuable—aside from a completeness hitherto never reached—is the hundred-odd plates whereby it is possible for the student to verify the differentiations laid down in the text. Moreover, there is no volume yet published which is so complete in its description of the eggs of North American birds, or so accurate in measurements.

Mr. Ridgway's long connection with the Smithsonian Institute, his intimate association and co-operation with the late Spencer F. Baird—a most excellent portrait of whom adorns this volume,—his well known thorough, painstaking methods, fit him as few individuals are fitted for the preparation of a work of this class, and the text more than bears out any anticipation.

Though there are other volumes of like character, there are none so accurate or that so carefully delineate family, generic, and specific characteristics. No student of ornithology can hope to reach anything like perfection in this branch of science without this work of reference. Indeed, the reviewer, for many years a student of ornithology, is obliged to admit that Ridgway's Manual is far superior to any other work of like character, both in comprehensiveness and descriptive accuracy. The absence of typographical and other errors is most notable. Too high praise cannot be given Mr. Ridgway for affording ornithologists so excellent a reference and text book.

HEATHER FROM THE BRAE. By David Lyall. Cloth; 12mo; pp. 214. Price, \$1.00. Fleming H. Revell Co., Chicago.

The author of this charming little series of Scottish character sketches shares with Ian Maclaren the gift which belongs only to those who are born in the land of the heather. Notably the same feeling, reality and artlessness belong to both authors; they alike enter with a keen insight and profound sympathy into the common life of the Scottish people; and both are at their best when portraying the hard-headed Presbyterian peasant with all his stern kindliness of character, austere religion, deep spiritual experience, dry humor, and love of polemics. In some respects, however, Lyall approaches more nearly to Barrie, but is superior to the latter in tenderness and pathos. Although there is a strong national and literary kinship common to the three writers, and all breathe the same Drumtochty

and Thrums air, Lyall has a *genre* of his own which gives an individuality as well as a distinctive charm to his work; this is most effectively seen in the two touching stories, "Robin" and "A Lost Lamb," which, though unrelated to each other, have the common link of human interest in what may be accomplished by "one of the weakest things of the world." Another tale, "At the Door," suggests The Doctor's Story in the "Bonnie Brier Bush," but the incident as well as the handling is different, and the result is a picture as original as it is striking. Equally diverse, in incident at least, are the stories of "The Mysteries of the Mount," which are studies peculiarly their author's own.

We are sure no reader will fail to be delighted with the charm that pervades Lyall's tales; whoever takes them up will not only read them through, but be so attracted that he will return to them again and again. This is the measure of a good book and good author.

THE HISTORY OF CIRCUMCISION. By P. C. Remondino, M.D. Cloth; 12mo; pp. 346. Price, \$1.25. The F. A. Davis Co., Philadelphia.

This is a valuable work, both from medical and archæological standpoints, but written more especially as a timely warning regarding maladies of which the lay public know little.

To the profession the volume is at once a source of instruction and recreation, presenting no inconsiderable amount of pathology relating to the moral and physical aspects of circumcision. The operative chapter is particularly useful, all forms of procedures being impartially reviewed. That portion which relates to the natural history of man evidences a wonderful amount of study and research.

Finally, the book is one that should be read by every father, by every invalid or victim of obscure nervous disorder, and as well by every biblical student. The general absence of technical terms renders the work available to all classes of society.

READY-REFERENCE HANDBOOK OF DISEASES OF THE SKIN. By George T. Jackson, M.D. Cloth; 12mo; pp. 594. Price, \$2.75. Lea Brothers & Co., Philadelphia.

The author has utilized the opportunity afforded by the demand for another edition of his manual, to adapt it more perfectly to its purpose, and by a revision apparent in every page to place it *au courant* with the latest advances of dermatological knowledge. It affords a very ready and concise source of knowledge on all points connected with dermatological affections.

PROCEEDINGS OF THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Edited by R. Harvey Reed, M.D. Cloth; 16mo; pp. 221. Published by the Academy.

This is an exceedingly interesting volume and will prove of especial value to surgeons generally, whether connected with railway service or not.

There are a number of excellent plates, but the typography and binding could be considerably improved. The introduction of portraits we hold to be hardly in good taste, since there is no cogent reason therefor—it smacks rather too much of the "wild and woolly" journalism of some of our Western confrères.

A MANUAL OF VENEREAL DISEASES. By James R. Hayden, M.D. Cloth; 12mo; pp. 267. Price, \$1.50. Lea Brothers & Co., Philadelphia.

In this concise manual, students and practitioners will find a clear and practical explanation of venereal diseases, together with their complications and sequelæ. It is an excellent and authoritative epitome of the subject. Numerous formulas and prescriptions are given, which will undoubtedly prove of value.

THE BRITISH GYNÆCOLOGICAL JOURNAL. Edited by F. F. Schacht, M.D. John Bale & Sons, London.

The August number of this well known quarterly presents an exceedingly interesting table of contents. The editor writes of "Unruptured Tubal Gestation;" F. B. Jessett of "Multilocular Cyst of Great Omentum;" Robert Bell of "The Treatment of Carcinoma of the Uterus, Certain Forms of Ovarian Disease, and Fibroids of the Uterus, by Means of Thyroid, Parotid and Mammary Gland Therapeutics;" Fancourt Barnes describes "Some of the Physiological Consequences of Suppressed Menstruation;" Edmund Holland presents "Notes on a Case of Successful Transfusion after Extreme Hæmorrhage;" Keith Napier discusses "The Administration of Animal Extracts and Allied Substances during the Menopause;" H. Bellamy Gardner writes on "The Use of Anæsthesia in Obstetric Practice" (continued); Alfred J. Smith presents "A Report of the Work Done in the Gynæcological Department of St. Vincent's Hospital, Dublin;" J. J. Macan discusses "Vagino-fixation of the Uterus;" David Hardie describes "A Case of Extra-uterine Pregnancy with Operation at Eighth Month;" F. Edge, "A Case of Uterus Bicornus Septus." There is the usual summary of Gynæcology and Obstetrics, and editorial—the number as a whole being exceedingly interesting and most valuable.

THE ROYAL NATURAL HISTORY. By Richard Lydekker, B.A., F.R.S., F.Z.S. Paper; 8vo. Price, 50 cents per copy; \$11.00 per year. Frederick Warne & Co., New York.

The twenty-ninth number (Volume V, No. 5—July 1st, 1896) continues The Fishes, with the bull-heads and gurnards, gobies and blennies, followed by the barracudas, mullets, serpent-heads, thorn-backs, wrasses, etc. Next come the tuft-gilled fishes—tube-mouths, pipe-fishes, and sea-horses; the soft-finned group—the cod tribe, flat fish, the eel tribe, carps, blind-fish, pike, etc.

In No. 30 (July 15th) the tube-bladdered group is completed—salmon, herrings, ganoids, etc., with the extinct varieties. Then follow the sharks and rays, closing with the lowest vertebrates and their allies.

No. 31 (August 1st) is the beginning of Volume

VI and likewise of the Invertebrate Series. Ants, wasps, bees, etc., are treated of, followed by the Diptera—the flies and fleas, etc. Then follow the Lepidoptera—butterflies and moths. This volume also contains the title and index to Volume V. The illustrations, as usual, are very superior, and the colored plates in the respective numbers represent the gurnards, flat fish, globe and coffer fish, blue shark, giant swift moth, and Orthoptera.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

The September issue contains: "Trinity University, Toronto," by A. H. Young; "The Silver Question," by J. W. Longley; "Through the Subarctics of Canada," by J. W. Tyrrell; "The Physics Building at McGill University," by F. Tillemont-Thomason; "Kate Carnegie" (xv-xvi), by Ian MacLaren; "Imperial Federation," by John Ferguson; "All the Way to the Mansion House," by Grace McLeod Rogers; "The Isle of Fishers," by James Murray; "A Thousand Years of the Magyars," by Thomas Lindsay; "A Deposed Favorite," by E. Lætitia Phillimore; "The Barkers' Second Honey-moon," by Ella S. Atkinson; "De Half Pas' Two Hoss," by Clifford Smith; "The Use of Corporal Punishment," by J. L. Payne; and the usual "Current Thoughts," etc., by the editor.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

Contents for September: "The Little Brown Bird," by the Marquess of Granby; "Harboring on the Quantocks," by Arthur W. Bristow; "A Lost Art," by W. J. Ford; "In Petland," by Lady Middleton; "Hawleyana," by the Earl of Suffolk and Berkshire; "The Blue Ribbon of the Thames," by C. S. Colman; "The Angler at Bay," by Sir Herbert Maxwell; "Old Sporting Prints—Harriers" (vii), by Hedley Peek; "A Midnight Trail," by Owen Rhoscomyl; "Lythe Fishing," by Archibald Boyd; "Swimming for Ladies," by Mrs. Batten; "Notes by 'Rapier.'" The illustrations are by Archibald Thorburn, G. H. Jalland, H. J. Ford, Maurice Greiffenhagen, H. G. Massey, Lucien Davis, and others.

ANNALES D'OCULISTIQUE. Price, 50 cents; \$5.00 per year. Transatlantic Publishing Co., New York.

In the September number of the English edition L. Vacher treats of "Extraction of the Transparent Lens as a Prophylactic Measure in Progressive Myopia of High Degree, and in Detachment of the Retina;" L. De Santi of "Rapid Examination of Vision before the Council of Revision;" L. De Wecker of "Obstetrical Ocular Lesions;" Charles Abadie of "Clinical and Pathogenic Study of a Little Known Complication Following Cataract Extraction with Iridectomy;" Ole Bull on "A Case of Lunar Amblyopia;" Deschamps on "Instruments—a New Forceps Hook for Muscular Advancement." There are the usual Reports of Societies, Reviews of Ophthalmological Journals, and Miscellany.

OUTING. Price, 25 cents; \$3.00 per year. Outing Publishing Co., New York.

The September number opens with an article by H. M. Hoke, entitled "The Secret of the Pines;"

"The Thirty-foot Class" is by R. B. Burchard; "The Courtship of Jack Curtis," by George Gladden; "With the Upland Plover," by J. R. Benton; "Tenting in the Arid Lands," by J. W. Hays; "A Summer Ride," by Herman Rave; "Pirarucu Fishing on the Amazon," by H. H. Smith; "The Moose Call," by F. H. Risteen; "Lenz's World Tour Awheel" (continued); "Rail and Reed-Bird," by E. W. Sandys; "The Silver Wedding of Canoeing," by R. B. Burchard; "Military Rifle Shooting," by A. S. Jones. There are the usual departments.

VICK'S ILLUSTRATED MONTHLY MAGAZINE. Price, 50 cents per year. Vick Publishing Co., Rochester, N. Y.

Table of contents for September: "Some Basket Plants;" "The Black Flower Beetle and the Aster Borer;" "Bulbous Plants;" "The Possibilities of the Calla;" "A Celery and Root Storage House;" "Feeding Crimson Clover;" "Datura, or Angels' Trumpet;" "Feed the Plants;" "Hardy Flowers;" "Wild Flowers in the House;" "Injurious Fungi;" "Injurious and Other Insects;" "Japanese Irises;" "Letter Box;" "Lice and Ants on Apple Tree;" "The Mystery of the Pearl;" "Rose Culture;" "Strawberries in the Garden;" "Sweet Pea, Bride of Niagara;" "Tumbling Mustard," etc.

THE POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

In the September number David A. Wells continues his articles on the "Principles of Taxation;" D. S. Jordan writes of "The Sympsychnograph," important physiological information is given in J. E. Humphrey's "Some Modern Views of the Cell;" C. F. Hodge writes of "The Vivisection Question;" S. G. Fisher discusses the relations of "Immigration and Crime;" "Illusions and Hallucinations" is by W. R. Newbold; "Social Insects," by L. N. Badenoch; Alice D. Le Plongeon gives an account of "The Potter's Art among Native Americans;" "Dust and Sand Storms in the West" is by J. A. Udden.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the October issue is "The Crown Prince of Rexania," by E. S. Van Zile. "Bullwinkle, the History of a Poor Student," is by Eliza Gold; "Jim Bowers' Hoss," by Sydney Reid; "England's Indian Army," by D. C. Macdonald; "Before the Dawn," by Elizabeth Knowlton Carter; "Russian Girls and Boys at School," by Isabel F. Haggood; "The Quays of Paris," by A. F. Sanborn; "Shakespeare's Old Saws," by William Cecil Elam; "Humanity's Missing Link," by Harvey B. Bashore. The poetry is by Celia A. Hayward, John L. Best, and Clarence Urmy.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

The September number contains: "The So-called Socorro Tripoli," by C. L. Herrick; "Paleontology and the Biogenetic Law," by Karl von Zittel; "The Retreat of the Ice-Sheet in the Narragansett Bay Region," by F. B. Woodworth; "Origin and Age of the Laurentian Lakes and of Niagara Falls," by

Warren Upham; "The Black River Limestone at Lake Nipissing," by N. H. Winchell; "Editorial Comment;" "Review of Recent Geological Literature;" "Recent Publications;" "Correspondence;" "Personal and Scientific News."

NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Publishing Co., New York.

The September number contains: "From a Silver to a Gold Standard in British Honduras," by Sir Alfred Moloney; "Are the Farmers Populists?" by J. M. Stahl; "America's Duty to Americans in Turkey," by Doctor Cyrus Hamlin; "The Plague of City Noises," by J. H. Girdner; "The Late Session of Parliament," by Justin McCarthy, M.P.; "The Coming Struggle on the Nile," by A. S. White; "Neo-Malthusianism," by Rev. Father Clarke, S.J.; "The Duty of the Hour," by Warner Miller and Richard P. Bland.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Co., Irvington, New York.

The September number opens with an illustrated article by H. C. Chatfield-Taylor on "Granada and the Alhambra." Other notable papers are: "William Wetmore Story," by Mrs. Lew Wallace; "A Summer Outing on Northwestern Waters," by R. E. Strahorn; "The Wonderful New Eye of Science," by Camille Flammarion; "Belle's Beaux," by Francis C. Baylor; "The Neighborhood Rooster," by Maurice Thompson; "The Routing of a Ghost," by John J. A'Becket; "The Three in Green," by Gertrude Hall.

AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

In the September issue Herbert Nichols discusses Professor Baldwin's "New Factor in Evolution," "Birds of New Guinea," by G. S. Mead, is continued; "The Bacterial Diseases of Plants—A Critical Review of the Present State of Our Knowledge" is by Erwin F. Smith. There are the usual departments devoted to Mineralogy, Crystallography, Petrography, Geology, Paleontology, Botany, Zoology, Entomology, Embryology, Psychology, etc.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

The chief contents of the September issue are: "Was Millais a Great Artist?" "Lawrence Barrett;" "The Bis-centenary of Saint Alphonsus' Birth;" "Nature and Extent of Biblical Inspiration;" "Henry Grattan;" "Catholic Growth in England;" "Olney's Massachusetts Predecessors;" "The Political Overturn in Canada;" "El Cristo de la Vega;" "The Ace of Hearts;" and "William Blake—Madman or Mystic."

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Company, Boston.

In the September number, "Furnishing a Model Home" is by Mary J. Lincoln; "Household Science," by Mrs. Mary H. Abel; "A General View of Cooking in the Grammar Schools," by Angeline M.

Weaver; "The Kitchen Garden Defined," by Annie P. Bull; "Training Schools in Belgium," by Ada M. Frederiksen; "Fall Mushrooms," by Annie P. Doughty.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per annum. Anthropological Society, Washington.

In the September issue Doctor C. H. Alden, Assistant Surgeon-General U. S. Army, writes of "The Identification of the Individual;" D. D. Gaillard of "A Gigantic Earthwork in New Mexico;" "Anthropology at Buffalo" is by W. J. McGee. There are the usual "Notes and News" and "Bibliography of Anthropologic Literature."

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

Contents for September are: "Decorative Sofa Pillows," by Carrie M. Ashton; "Economical Use of Space," by Rose Seelye-Miller; "A Window of Pillows," by Bertha S. Ashton; "On the Piazza in September Days," by Hester M. Poole; "Marken Holmes," by Laura B. Starr. There are the usual notes, departments, etc.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The issue for August 29th contains: "Church Architecture in America;" "Editorial Notes and Comments;" "Græco-Phœnician Architecture in Cyprus;" "The Legal Duties of Engineers and Architects;" "Sewage Disposal in Berlin;" "A Novel Plan of Building;" "Ancient Mural Decorative Art in Scotland;" and the usual departments.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Company, New York.

Alexander Wilder opens the September issue with an article entitled "Paracelsus as a Physician." "The Fall of Man" is by C. S. Norton; "Karma in the Later Vedanta" (v), by Charles Johnston; "Tyranny of Intellectual Shrewdness," by R. B. Davenport. There are the usual departments.

THE UNITED SERVICE. Price, 25 cents; \$2.00 per annum. L. R. Hammersly & Co., Philadelphia.

In the current issue C. B. Roylance Kent writes of "The New French Naval Programme;" "The Campaign and Battle of Chickamauga" is by E. T. Wells; "The Human Animal in Battle," by H. W. Wilson; "Jane and Rastus," by H. R. Brinkerhoff. "A Summer Cruise with Farragut" and "Service Salad" complete the number.

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines, Iowa.

The chief papers in the September issue are: "Senator Foraker," by Mrs. C. F. McLean; "On Foot in Egypt and Palestine," by N. Tjernagel; "In Southern Quarantine," by E. L. Sabin; "A Fatal Campaign," by A. G. Hatry; "The Ministry of Sorrow to Birds," by Hiram Heaton.

Therapeutic Brevities.

Black Cohosh.—This medicament is a powerful vaso-motor stimulant, as well as a noted uterine tonic and a stimulant to the respiratory centre and the spinal cord. The root is the part used. Professor Goss thinks, if the root is kept dry and ground only when used, it retains its virtue for four years; this is my experience, and I think a certain age of the root after digging is essential to affording the best therapeutic properties.

Black cohosh is a strong sedative to the pelvic viscera. Physiologically, the pelvic organs are supplied by nerves coming off from the lumbar section of the cord and from the hypogastric plexus of the sympathetic system. The fibres of the uterine muscle are of the unstriped kind, and its functions are akin to those under the domination of the sympathetic system. Black cohosh acts on this system of nerves; it is a stimulant to them; in small doses it raises blood-pressure through its vaso-constrictor influence on the peripheral arteries, through the vaso-motor centre in the medulla and the vaso-motor sections of the cord.

It promotes contraction of unstriped muscular tissue; I believe also it acts on the tissue cells themselves by stimulating the action of the protoplasmic constituents—in this way its alterative properties are carried out, as well as by increasing the capillary circulation, this latter no doubt being a result of the increased activity of the cell elements of tissues; as a result, more blood and oxygen pass to these anatomical elements, more active metabolism is brought about, and more active vital transformations occur in the recesses of the tissues. On this principle I account for the increased crystallized nitrogenous constituents that are found in urine and the more active capillary circulation brought about under the influence of black cohosh.

This medicament is a noted emmenagogue and uterine tonic, and the "old reliable" in amenorrhœa, dysmenorrhœa, menorrhagia, etc. Probably the best preparation is the decoction, a small quantity of potassium carbonate being added to the water, the heat not rising above 180° to 190° F., slow simmering for two or three hours—I think that from the crude root prepared in this way the very best results on the uterus can be realized. The saturated tincture is best as a nervine and in chorea, yet I have always obtained better results when the tincture was administered in a decoction prepared as above.

Our old Eclectic brethren use black cohosh largely in measles, scarlet fever, chicken-pox, and other exanthems, with decidedly excellent results; also in many skin diseases. The decoction is a prized remedy with me in many kidney diseases, and I obtain excellent results from it in Bright's disease; it is a sedative to the epithelium of the uriniferous tubes, and promotes diuresis without exciting the blood- or nerve-supply of the organs. In these cases I combine it with chimaphila—one is synergetic to the other. I think I have cured several incipient cases of Bright's disease, and have stopped renal congestions and engorgements from deepening into more serious organic diseases, by combining the above two medicaments. Chronic catarrh of the bladder is also considerably well treated by the same combination; in fact, black cohosh is an all-round remedy in diseases of the pelvic organs. It is a decided sedative to the excito-motory centres of the cord, which is proven by the frequent excellent results obtained from it in chorea, locomotor ataxia, chronic myelitis, chronic muscle-jerk, etc.

The saturated tincture of the root painted over a painful part often affords relief. The old Eclectics used the decoction of the root topically as a "pain-killer" in swollen and painful joints, in incipient abscesses and boils, and in ophthalmia; the results accruing when the saturated tincture is thus painted over painful spots, as arthrites of one kind and another, over the eye-brows in photophobia, on inflamed glands of the neck, groin, axilla, over the scrotum in orchitis and epididymitis, over the ovaries in congestion of those organs, show that it possesses marked discutient powers. Remember the medicament will, in too large doses, cause severe headache, which in my opinion is pure nerve excitement having nothing to do with the blood-supply to the brain. Proper doses will remove the backache due to uterine excitement or to similar trouble in the ovaries.

It is a very valuable oxytocic, and seldom if ever fails to bring on natural labor pains; the uterine contractions simulate the normal, never the tetanic kind peculiar to ergot; hence its marked superiority, on the score of safety to the child. I have used it to the exclusion of the latter drug as an oxytocic during the last forty years, with decided satisfaction. While on this subject, I will say ergot is responsible for a large share of stillbirths and unfortunate results to the mother that occur in obstetrical practice. I regret much to have occasion to charge many physicians with this kind of malpractice, for it is nothing less; ergot is employed a thousand

times more often than scientific obstetrical practice will justify! I have relieved some very rebellious cases of enuresis with black cohosh, preferring the decoction of the root, after several other highly popular remedies had failed. Do not forget black cohosh in these cases.

In decoction with phosphate of soda, black cohosh works remarkably well in hepatic engorgements and gastric catarrh, and the addition of hydrastis root is often an advantage; I frequently find the three do what either alone or any two will fail to bring about. I am as much opposed to shotgun prescribing as the most strenuous specific medicationist; nevertheless, the combination of two or three remedies in one prescription often effects more satisfactory results than the single remedy can bring about.—JOSEPH ADOLPHUS, in *American Medical Journal*.

Remedial Foods.—Celery is invaluable for rheumatism, diseases of the nerves, and nervous dyspepsia; lettuce for those suffering from insomnia; watercress for scurvy.

Peanuts are especially recommended for corpulent diabetics. They make a wholesome and nutritious soup; may be browned and used as coffee; eaten as a relish, simply baked; or can be prepared and served as salted almonds. They are excellent for indigestion.

Onions are almost the best nervine known; nothing is so useful in nervous prostration, and there is nothing else that will so quickly relieve and tone up a worn-out system; they are also useful in coughs, colds, and influenza, in consumption, insomnia, hydrophobia, scurvy, gravel, kidney and liver complaints; eaten every other day, they soon have a clearing and whitening effect on the complexion.

Spinach is useful to those with gravel; asparagus to produce perspiration; carrots for sufferers from asthma; turnips for nervous disorders and for scurvy. Raw beef is of great benefit to persons of frail constitution, and to those suffering from consumption if chopped fine, seasoned with salt, and heated by placing in a dish of hot water; it assimilates rapidly and affords the best nourishment.

Eggs contain a large amount of nutriment in a compact, quickly available form; beaten up raw with sugar they are used to clear and strengthen the voice; with sugar and lemon-juice the beaten white of egg is said to relieve hoarseness.

Honey is wholesome, strengthening, cleansing, healing, and nourishing.

Fresh ripe fruits are excellent for purifying the blood and toning up the system. As specific remedies, oranges are aperient, and sour oranges are highly recommended for rheumatism; cranberries are used externally as well as internally for erysipelas; lemons for feverish thirst in sickness, for biliousness, low fevers, rheumatism, coughs, colds, liver complaints, etc.; blackberries are tonic and useful in all forms of diarrhoea; tomatoes are powerfully aperient stimulants to the liver, and sovereign for dyspepsia and indigestion—are invaluable in all conditions of the system in which the use of calomel is indicated; figs are aperient and wholesome, and valuable for those suffering from cancer—they are used externally as well as internally; apples are nutritious, medicinal, and vitalizing—aid digestion, clear the voice, correct the acidity of the stomach, are useful in nervous dyspepsia, invaluable in rheumatism, insomnia, and liver troubles—one apple contains as much nutriment as a potato, and in pleasanter and more wholesome form.

Grapes dissolve and dislodge gravel and calculi, and bring the stomach and bowels to a healthy condition.

Pie-plant is wholesome and aperient; is excellent for rheumatic sufferers and useful in purifying the blood.—*Druggists Circular*.

Jamaica Dogwood.—While Jamaica dogwood produces sedation of the nervous system and refreshing sleep, it is not a complete substitute for opium, though often preferable to the latter as a soporific. As an anodyne, to lull pain, opium is usually preferable. Piscidia is not followed by the ill-effects that succeed opium; neither is it as certain in action or as powerful. In neuralgia it is more nearly a specific than any remedy, especially in relieving facial neuralgia, toothache, and nervous headache; it also often relieves the pain of sciatica and lumbago. An old lady, who fell and fractured the neck of the femur, suffered so severely from pain that it prevented sleep, until I gave her fifteen-drop doses of fluid extract of Jamaica dogwood at night, which effectually relieved. Muscular spasms likewise are relieved by this drug.

Jamaica dogwood answers well in cases of fractures, very painful rheumatism, cancer, gangrene, and many other diseases attended with severe pain; and as it acts upon the sympathetic nerve centre, it is a remedy for asthma-œdema of the glottis. In full doses it cures ivy poisoning. It is also a valuable remedy in pertussis, relieving the cough. In cases of *mania a potu*, I have found prompt

relief from fifteen to twenty drops of fluid extract Jamaica dogwood given to patients as soon as they began to sober off; it rarely needs repeating under twelve hours.

Some writers praise the drug in maniacal frenzy, given in full doses so as to produce sleep at night, and two or three moderate doses in the day to keep the brain quiet. It certainly acts kindly in melancholia, and is a remedy for the opium habit. Nevertheless it must be remembered that though this drug is powerful for good, it is not devoid of evil, and should never be given in very large doses. It is preferable to opium in cases of painful labor, and rather hastens it to some extent; hence it is safer. As a soporific or hypnotic, Jamaica dogwood is preferable to opium or any other drug yet known.—I. J. M. Goss.

Venesection.—I have performed venesection 1200 times in 485 patients. It is indicated above all things in pneumonia, and in affections of the lungs associated with high fever; also in acute cardiac diseases, in acute cerebral hyperæmia, in acute nephritis, gout, and influenza. The chief indications, as regards chronic diseases, are in chlorosis and anæmia; it is also useful in chronic muscular and articular rheumatism. The other indications are lancinating pains of tabes dorsalis; migraine; neuralgia; epilepsy; eclampsia; hæmorrhages from the nose and lungs; hæmorrhoidal veins; chronic cardiac and renal diseases.—SCHUBERT, before the Congress of German Naturalists and Physicians.

Value of Mullein Oil.—Two school-girls who had been excluded from the public schools on account of deafness, were again admitted after about three weeks' use of the mullein oil, two or three drops in each ear twice a day. I have found it helpful in many cases of deafness in older people. For enuresis also I have found it, so far, a specific. I place it at the head of the list for that condition, both for its certainty and pleasantness. A boy of sixteen had from childhood been troubled with enuresis, which nothing would cure until he received fifteen drops of mullein oil three times a day; this soon afforded permanent relief.—DOCTOR LAWS, in *California Medical Journal*.

Wet Dressings.—In cases of severe injury to fingers by laceration or contusion, put the entire hand into a very ample soaking-wet dressing. Do not even trim off a piece of flapping skin. Incision for drainage is all

that is allowable until healing is very well under way or even quite complete. One may then look over the ground and see whether it is worth while to sacrifice anything. A half-inch of *boneless* finger may be of incalculable value to its possessor.—*International Journal of Surgery*.

Chancres.—Salicylic acid and iodoform, mixed in equal parts, form a most satisfactory dressing for chancres, both hard and soft. During thirty years I have not had cause to be dissatisfied with this combination.

Clean out the sores with hot water or lime-water, dry well, then pack with the powder, and cover lightly with absorbent cotton, retaining with tight string. Dress twice a day after cleansing.—JOSEPH ADOLPHUS, in *Chicago Medical Times*.

Puerperal Sepsis.—In puerperal sepsis, ergot and strychnine are indispensable drugs. Twenty drops of the fluid extract of ergot with one-sixtieth of a grain of strychnine sulphate should be given every six hours, night and day. Good whiskey is to be given in large doses to combat fever and prostration, and to keep up the nourishment.—DAVIS, in *Philadelphia Polyclinic*.

Boil on the Nose.—For a boil on the end of the nose, where an ordinary poultice would be of no avail, try a raw cranberry, crushed and laid over the part, and kept in place with a dab of stiff boiled starch. It relieves the excruciating pain in a short time, and will cure the trouble in twenty-four hours.—CARL SEILER.

To Control "Bleeders."—The internal use of calcium chloride has given promising results, from the fact it increases the coagulability of the blood, both in animals and in man. In several cases of hereditary hæmophilia good results followed its use.—*North American Journal of Homæopathy*.

Insects' Stings and Bites.—

- B Acetic ether, 5 parts.
- Eucalyptol, 10 parts.
- Eau de Cologne, 10 parts.
- Tincture pyrethrum, 50 parts.

Dilute with four or five times its bulk of water, and apply as a lotion.

—*The Practitioner*.

Pennyroyal for Suppression of Milk.—Doctor C. C. Moore declares that in several cases in which the oil of pennyroyal was freely

rubbed upon the breast, at intervals of an hour, the secretion of milk was arrested and threatened abscess averted.—*Colorado Medical Journal*.

Uranium Nitrate.—This is a drug of considerable value in the treatment of diabetes mellitus, though, like all other drugs, it cannot be relied upon to produce equally good results in all cases indiscriminately.—*Medical Press and Circular*.

Glandular Enlargement.—In nearly every case of glandular inflammation, notably mastitis and orchitis, fluid extract of phytolacca, five drops every two hours in water, will prove very satisfactory.

False Unicorn.—It is said that fluid extract of helonias (*Chamaelirium luteum*) in five-drop doses is an effective remedy in the dragging and bearing-down sensation peculiar to pelvic disorders.

Strychnine and Parturition.—Strychnine, one-sixtieth of a grain, thrice daily, for six or eight weeks before parturition, is a serviceable prophylactic against uterine inertia during labor.

Night Sweats in Phthisis.—The application of a cold-water compress covered with a bandage of flannel often proves efficacious when the usual remedies fail.—*Exchange*.

Strychnine and Chloroform.—There is no antagonist to chloroform so valuable as strychnine in full doses, and on the slightest sign of cardiac or respiratory failure.

Gonorrhœal Rheumatism.—Give fluid extract of jaborandi in half-teaspoonful doses every half-hour until four doses are taken.—*Medical Summary*.

To Abort Bed-sores.—Paint the skin, as soon as it reddens, with a solution of nitrate of silver, twenty grains to the ounce.

Uncontrollable Vomiting of Pregnancy.—Treat by faradization of the vagi before or after meals.

Uterine Irritability.—Asafoetida is especially useful, particularly in threatened abortion.

Medical Progress.

ENORMOUS RENAL CALCULUS.—The following is an account of the condition of the kidneys, with a description of an unusually large renal calculus, found in the dissecting-rooms of the University of Edinburgh, in June, 1896; the subject was an elderly man, whose age was ascertained to be between sixty-four and seventy, but could not be more accurately determined:

The ascending colon and third part of the duodenum lay in front of the right kidney. All the viscera practically occupied their normal positions. Attention was attracted by a large hard mass behind the ascending colon, and, the latter having been turned aside, the mass was found to be in association with the kidney. An incision into it exposed a hard yellowish-white calculus. The kidney and ureter were removed, and the incision was found to have merely passed through a dilated renal pelvis. A lymphatic gland one and one-fourth inches long and one-half inch broad lay in front of the structures entering the hilum. On section of the vessels at the hilum the renal vein appeared to be unusually short, but on closer examination this was ascertained to be due to the fact that the sinus was filled by a large mass of dense fatty tissue which closely invested the renal vein, renal artery, and ureter. The kidney measured *seven and one-half* inches in length, four inches in breadth at the hilum, and two inches in thickness at the posterior border; the distended pelvis was four inches in length and two inches in breadth from the anterior lip of the sinus.

Towards the upper end of the kidney, on the anterior surface, there was a cyst about the size of a pea. The capsule stripped readily off, and was non-adherent. The general surface was lobulated, the lobulations being due to the occupation of the calices by projections from the calculus. The kidney substance around these lobulations appeared, for the most part, to be normal in structure, so far as could be judged from a naked-eye examination: where it was normal it measured three-fourths of an inch in thickness on section, whilst in the lobulations it was thinned down so as to form a mere cyst-like wall.

The calculus was an exact cast of the interior of the pelvis, calices, and infundibula. It was of a yellowish-white color, and stained red over certain portions. The weight was 552 grammes (about twenty ounces avoirdupois), and it measured in its longest diameter four and one-half inches, by five inches in

breadth, with a circumference around its most prominent projections of ten and one-half inches. It showed a large pear-shaped portion, which had evidently occupied the pelvis. The remaining part presented seven projections, which had lain in the infundibula and calices. Each projection was attached to the general mass by a constricted neck, and beyond the neck expanded so as to end in a flat surface. From an examination of the broken end of one of these projections, the interior was seen to consist of a multitude of grains, each rather larger than a pin's head, agglutinated together.

Particles were removed from the interior of the broken projection, and also from its edge, and were subjected to a qualitative analysis. Those from the interior were insoluble in hydrochloric acid, even when concentrated, thus excluding phosphates, oxalates, and carbonates; concentrated ammonia did not affect them, so that tyrosin, xanthin and cystin were all absent; on boiling with caustic potash, no ammonia was given off, evidencing that ammonium urate and ammonio-magnesium phosphate were not constituents. On adding dilute nitric acid and evaporating to dryness, the residuum gave a purple-red color with ammonia, and a blue-violet with caustic potash, proving the presence of uric acid.

On the addition of hydrochloric acid to the particles from exterior of projection, some carbonic acid gas was given off, indicating the presence of a carbonate; also faint traces of magnesium were made out. On the application of heat to the particles they charred very readily, indicating that organic matter was present in large quantity. The ash, as well as the hydrochloric acid extract obtained from the particles, was exceedingly rich in phosphorus.

Everything in connection with the behavior of this organic matter indicated that it was of nuclear origin, in all probability derived from dried pus.

The left kidney occupied its normal position, but comparatively small calculi could be felt imbedded in its substance, and others free in the pelvis. When dissected out, the kidney measured six inches in length, two and a half inches in breadth at the hilum, and three-fourths of an inch in thickness at the posterior border. The pelvis was widely dilated, although not to the same extent as in the right kidney. The capsule stripped readily off, and the kidney substance appeared normal. A plaster cast was taken of the pelvis and calices, and this bore a striking resemblance in form to, but was somewhat smaller than, the calculus removed from

the right kidney. Of the four calculi removed from this organ, the largest was about the size of a horse-bean and of somewhat the same shape; it weighed 4.7 grammes; the next in size weighed 1.85 grammes. These two lay free in the pelvis, and the smaller was distinctly faceted. Of the two imbedded in the kidney substance, one was tooth-shaped, one centimeter in length, four millimeters in breadth at its base, and weighed fifteen centigrammes. The other was pyramidal, with a concave oval facet on its base; it was three millimeters in length, from apex to base, and weighed two centigrammes; on one of its flat surfaces there were two or three minute projections.

The sigmoid flexure in this subject measured seventeen inches in length.—J. B. YEOMAN, in *Journal of Anatomy and Physiology*.

HEART WITH MODERATOR BAND IN THE LEFT VENTRICLE.—In February, 1893, I exhibited and described to the Anatomical Society* a human heart, in the left ventricle of which three slender bands passed from the septal wall across the cavity to the posterior wall of the ventricle. From their attachments they would doubtless have exercised during life a moderating influence over distention of the left ventricle.

I have now before me another human heart, in the left ventricle of which a slender moderator band, 38 millimeters long, arises by a conical muscular base, 9 millimeters in greatest diameter, from the anterior or septal wall. It passes directly across the cavity, to be attached to the posterior wall by a conical muscular base, 10 millimeters in greatest diameter. This attachment is in immediate relation with the origin of the large papillary muscle, which arises close to the left border of the ventricular wall. The septal base of the band is smooth and not subdivided, but the posterior base is broken up into slender columnæ carneæ. The band itself is about half a millimeter wide at its slenderest part, and consists there of a fine fasciculus of muscular fibre, invested by endocardium.

The posterior wall of the ventricle is broken up in the usual manner into columnæ carneæ, and gives origin at its margins to two large papillary muscles. The anterior septal wall, on the other hand, presents an extensive smooth unbroken surface, extending upwards into the aortic vestibule; but for from three to four centimeters above the apex slender columnæ carneæ are present in it. The sep-

**Journal of Anatomy and Physiology*, February, 1893.

tal origin of the moderator band is from near the lower part of the smooth area. The attachments of this band to opposite walls of the ventricular chamber would without doubt enable it to exercise a moderating influence on the dilatation of the cavity.

I think it not unlikely that a similar moderator band may occur in the left ventricle more frequently than at present is supposed to be the case. The mode of opening the left ventricle commonly followed, namely, to transfix it at the base with the knife, and cut downwards to the apex, would necessarily divide the band and interfere with its recognition. In both the hearts in which I have seen this band the walls were not transfixed with the knife, but were carefully cut through near the anterior and posterior inter-ventricular grooves.

A distinct fleshy moderator band, possessing the usual attachments, is present in the right ventricle. In this specimen, as in the heart described in 1893, a considerable area, extending beyond the infundibulum properly so-called, is smooth, and without columnæ carneæ.—SIR WILLIAM TURNER, F.R.S., in *Journal of Anatomy and Physiology*.

* *

Recently in making a post-mortem of a child that had died of ileo-colitis at the age of two weeks, I found a tense tendinous cord in the aorta. It arose from the junction of the left end of the left semilunar valve and the left end of the posterior semilunar valve, and extended to the junction of the left end of the right semilunar valve and the other end of the left semilunar valve.—DOCTOR ROHRLE, in *Deutsche Medicinische Wochenschrift*.

PROGRESS OF GYNÆCOLOGY.—In the early part of the century, gynæcologists were divided into two sections—one, mostly English, and represented by men such as Sir Charles Clarke and Doctor Gooch, which believed that uterine disease was caused by constitutional derangements; the other, mostly French, which believed that the local disease was of primary importance, and that it gave rise to accompanying constitutional trouble: of this party, Récamier and Lisfranc were the chief representatives.

Then in 1845 came Doctor J. H. Bennet, of London, with his theory that displacements, ulcerations, hæmorrhages and all pelvic troubles were due to inflammation of the uterus; and for some years he carried everybody with him. After this came Doctor Tyler Smith, who sought to prove that most of the cases of uterine disease met with

originated in a morbid condition of the mucous glands in the cervical canal, and that pelvic disease was to be nipped in the bud by attention to early symptoms of disorder in this portion of the genital tract.

Again, in 1854, at the discussion on the subject in the Academy of Medicine of Paris, Velpeau took up the position of champion of the displacement theory. "I declare," he said, "that the majority of the women treated for other affections of the uterus have only displacements, and I affirm that eighteen times out of twenty, patients suffering from disease of the womb or of some other part of this region—those, for instance, in whom the doctors diagnose inflammation—are affected by displacements." This view was afterwards modified by Doctor Graily Hewitt, of London, to the extent of asserting that it was not to displacements in general that bad effects were to be traced, but almost only to flexions of the uterus.

In 1860 Doctor Tilt, of London, promulgated his belief that, as a rule, pelvic diseases of women radiated from morbid ovulation, and that ovaritis was the one thing to watch for, and to deal with if discovered.

Since that time different men have combined such portions of these various theories as their disposition and fancy dictated, and have regulated their practice accordingly.

What are we, in the end of the century, to think of all this? Is it not that we should carefully observe for ourselves the facts of disease, and in their light try to sift from each of these theories what of truth lies concealed in it?

And while we should not neglect the use of every other means of observation and physical diagnosis, I am clearly of opinion that we must look to the intelligent use of the speculum as a chief means of arriving at a knowledge of facts in connection with diseases of the pelvic organs, and of intelligently watching the effects of treatment.—DOCTOR W. L. REID, in *Glasgow Medical Journal*.

THE UVULA OF THE INSANE.—By examination of 108 insane patients, I discovered that in no less than fifty-three, or almost 50 per cent., deformities of the uvula were present. The commonest peculiarity was a twist to one side, about equally to the right or to the left, but a little oftener to the left side. The total number of patients with a twisted uvula was thirty-two, or not quite 31 per cent. The proportion was much greater in the degenerative forms of insanity, the number being nineteen among thirty-five cases, or over half, as against thirteen in sixty-nine

cases of acquired insanity. Thus, just in proportion as the physical stigmata of degeneracy were more marked, the proportion of deformed uvula increased. Hypertrophy and elongation of the uvula were not abnormally frequent, and they were not commoner in the degenerative than in the non-degenerative types. Bifid-uvula was not found in any case. So far as sex is concerned, the proportion of twisted uvula in men was 32 per cent., and in women 29 per cent. I opine, from the results of this inquiry, the existence of a uvula twisted to one side and not innervated forms an anatomical and physiological stigma of degeneration. The twist or bend implies an unequal development of nerve-supply of the two sides, and the degenerate uvula is, as might be inferred, one that has an unequal and defective nerve-supply. In more than half of all degenerates the azygos uvulæ does not act.—DOCTOR C. L. DANA.

SECRETORY EXCITABILITY OF ALIMENTARY CANAL.—Dolinsky made a series of experiments on dogs carrying pancreas and stomach fistulas, which show that secretions of the pancreas are stimulated when the lining of the duodenum comes in contact with acids—diluted vinegar acid, mineral acids, lactic acid, or sour drinks; this circumstance also affects noticeably the secretion of the gastric juice. Alkaline liquids do not produce the same effect; nor do neutral liquid foods when introduced without the knowledge of the animal. Special experiments with dogs which had, besides the two fistulas, an opening into the œsophagus, showed that the psychical effect of giving food, even when the animal was deceived with pretended food, was to excite the secretion of gastric juice, the hydrochloric acid of which stimulated in turn the secretion of the pancreas. Dolinsky considers these facts important in a teleologic sense, as the alkaline secretion of the pancreas neutralizes the acidity of the gastric juice. Fats also excite a reflex pancreatic secretion, and alcohol in a slighter degree.—*Centralblatt für Chirurgie*.

WANING REPUTATION OF COLORADO.—It was some time ago intimated in an Eastern paper that the streets of Denver were covered with the sputa of consumptives. The statement was not far from the truth. Unless very rigid measures for the prevention of the spread of consumption in Colorado are adopted and put in force, Colorado will become a "pest-hole." One thing that may

help us out in this country is the fact that the amount of rainfall seems to be on the increase. There is no question that Colorado has probably the greatest climate in the world, all things considered, for the average consumptive, yet, in our opinion, it would be a fortunate and glorious day for Colorado to lose that reputation. With a better understanding of the cause of consumption and better knowledge of its prevention and better facilities and methods for its treatment, climate will not long, we trust, be a desideratum in the management of this disease. We now look upon tuberculosis and realize that it is the most contagious of all diseases known to humanity. Every consumptive who walks along one of our sidewalks and deposits a lump of tuberculous matter, loaded with consumptive germs, is deliberately and, in most instances, intentionally doing that which will spread the very disease of which he is dying; and it was through just such criminal carelessness of some other consumptive that he contracted tuberculosis himself.—*Denver Medical Times*.

URINATION AFTER LABOR.—Urination after labor, in the majority of cases, follows spontaneously. Catheterization is but exceptionally required, and then it should be deferred as long as possible: it is only indicated when the bladder assumes abnormal proportions, or if retention occurs. It is liable to cause two evils—cystitis, in spite of all precautions, and dependence of the bladder for a time upon the catheter.—*Revue Internationale*.

NEW SIGN OF EARLY TABES.—In a patient with tabes, it is often possible to flex the leg at the hip without bending the knee until the toe almost touches the ear, without producing the sense of painful tension in the popliteal space so speedily felt by one in health. This is not only an interesting feature of advanced cases, but is a valuable early diagnostic sign.—PUTNAM, in *Boston Medical and Surgical Journal*.

LEAD GOUT.—I would limit this term to cases in which gouty manifestations are associated with those of chronic saturnism and are without any other ascertainable cause than the action of lead. It has to be diagnosed from acute articular rheumatism and from saturnine arthralgia; in the latter there are no inflammatory phenomena.—DOCTOR H. LUETHJE, in *Zeitschrift für Klinische Medizin*.

The Medical Age.

VOL. XIV.

DETROIT, OCTOBER 10th, 1896.

No. 19.

Original Articles.

WAR-TIME EXPERIENCES IN NORTHERN CHINA.

BY DR. W. F. ARNOLD, U. S. NAVY.*

I joined the *Petrel*, our smallest steel ship in commission at that time, at Nagasaki about the middle of October, 1894, after coming to the East for the first time in the Charleston only a few weeks before. None of my messmates had had any very favorable opportunities to estimate the state of preparation in which Japan had undertaken, rather hastily as it appeared, to go to war; and this lack of information continually puzzled us regarding matters of equipment, until the conflict was almost over. Two Japanese men-of-war—the *Hiyei* and the *Akagi*—had returned to Nagasaki to refit after their rather severe handling at the naval battle off the Yalu River, which the Japanese call that of the Yellow Sea; but the dock-yard authorities were very secretive, and little was known of the injuries they had received, except by the uncommunicative Japanese naval officers. Even a good description of the battle itself was not at that time accessible.

We left Nagasaki November 1st for Newchwang—which the Chinese call Ying-ko, the Japanese E-ko—meeting in the mouth of the river an English gunboat, outward bound, that had been helping one of its kind into her dock in Ying-ko for the winter. She signaled "A pleasant winter!" which the signal officer dutifully answered with "Thank you," in obedience to orders to make an appropriate reply.

This signaling episode recalls the fact that we made a short call *en route* at Chefoo (or Chi-fu), where was found a French man-of-war and two English ones, all with colors at

half-mast. The nearest of the latter informed us by International signals that the Czar was dead; and the second hoist of this signal made a curious error. The number made indicated "cold meat," and the first hoist had said "Czar of Russia"! Of course, it was corrected nearly instantly.

In this place we had abundant confirmation of the Sailing Directions' almost poetical description of the unloveliness of Newchwang; and with this stimulus we bought of such things as skates and ammunition and photographic supplies with all the eagerness of misers.

At Newchwang we were cordially received by the foreign residents, notably by the two native-born Americans that the place boasted; and the women-folks of the foreign settlement, whose numbers had been greatly increased by the ordering in of all the Protestant missionaries by their consuls, began to consider that they might venture to remain there throughout the winter, if our reinforcement of the *Firebrand's* (the English gunboat's) twenty-eight rifles could be effected.

We watched our dock being dug in the river bank without any exuberant cheerfulness, for we knew that, if we failed to get into it upon the next spring tide we should have to go to sea incontinently thereafter, to avoid injury to the ship by the ice; and there were not many of us that would have elected to remain there, and thus forego the prospect of witnessing some of the thrilling scenes in enactment elsewhere. The shiftlessness of the Chinese was most apparent then in their impossible tools; in the positively irritating way that two of them would slowly tote (that is the only really appropriate word) a handful of loose loam in a small square of gunny-sacking suspended by its corners from a bamboo stave; and in the utterly nondescript crowd that watched and otherwise embarrassed the comparatively few that worked.

* Late Medical Officer aboard U. S. S. *Petrel*.

At length—but not before a failure that tried the souls of the residents—we got into the dock and made all secure for the winter. The nature of the military and sanitary measures taken has been described and illustrated in a late Service publication* by Lieutenant Nathan Sargent, U. S. Navy, to which my comparatively uneventful experiences with the ship's company in a professional way alone are to be added.

I was, from the beginning, very uneasy on account of four of our men of long service, who were deficient in stamina and of very uncertain age. All of them fulfilled my expectations except one. The other three furnished me the only severe cases that I had to treat aboard the ship in the forms of acute lobar pneumonia, pleurisy, and malnutrition.

A Japanese mess-attendant went into melancholia under the strain that his heartless fellow-workers brought upon him by their thoroughly Chinese remorselessness toward a helpless individual—he did not recover until after his return to Japan for treatment in the U. S. Naval Hospital at Yokohama; and a member of our sergeant's guard of Marines who began to develop slight homicidal tendencies towards the end of our stay in the dock, never recovered, though he too was sent to hospital.

A peculiar diarrhœa attacked quite a number of the crew—perhaps twenty—but none of the officers; and it eluded every effort to assign it an origin. It was hardly existent throughout the day, but required its victim to "turn out" frequently and at short intervals every night under more than ordinarily incommoding circumstances. It was not very resistant to treatment in any case. Besides, I saw two cases of catarrhal dysentery that appeared to be a result of the exposure to cold that followed the removal of the roof from over the spar deck. In two of these cases I devoted a great deal of time to searching for *Amœba coli*, but with negative results—more time than has been required by an entire series of twenty cases presenting *amœba* in the alvine discharges.

Late in November, the agent of the International Red Cross Association in Tientsin

placed some of the funds of this organization at the disposal of the Port Physician, Doctor C. C. DeB. Daly, of the Imperial Chinese Customs Service, and these were further augmented by voluntary subscriptions by rich Chinese and others, as well as by grants from the local and from the Imperial (Chinese) Government.—I give these details merely to show how little regulation Red Cross work was done in China, as far as I saw it. Our part of it was simply wholesale charity, which was grateful enough on the whole, since the Chinese had hardly any medical staff at all, and these few without supplies and of no authority.

At a meeting which this gentleman had arranged at his house, of all of the medical men at Ying-ko, who numbered eight at this time, I incurred some measure of reproach for maintaining—with a little humor whose indulgence was irresistible, and with forcibleness born of conviction absolute—that all that we could do would be to inform the Chinese generals in local command that we were ready and willing to treat such of their wounded as might be brought to us; and that any ambulance corps of our contriving would most likely involve worse than failure from the inherent difficulties of transportation and from the complete untrustworthiness of the Chinese military officials in their ignorance of our motives. I predicted further that these same difficulties would, in a great measure, select our patients for us; which was verified in the small proportion of wounds of severity in the lower extremities that were presented subsequently for a considerable length of time.

I was no more prepared for the fighting in our immediate vicinage that ensued later, however, than were many military critics, some of whom had come already to see the foregone nature of the result of the war, but all of whom, so far as I am aware, overlooked the fact that a conquest, in the usual sense of the term, was out of the question from the inherent want of stability of the Chinese Government, whose downfall would leave the victors to reap what they might from the anarchy they themselves had brought about. It was this that, after the fall of Wei-Hai-Wei, prevented an advance on Peking, upon whose looting every Japanese soldier had set

* Proceedings of U. S. Naval Institute, 1895.

his truest heart; Moukden owed its safety to the same cause, for the essentially superstitious Chinese might easily have lost their never strong allegiance to a dynasty that was shown to be incapable of protecting its very much revered tombs from desecration.

An official in the German embassy had made a tour through the southern portion of Manchuria just before our arrival at Ying-ko, and his impressions were wholly favorable to the success of the Japanese, both from the nature of the country and from the obvious unprepared condition of the Chinese. The imperfectly convoyed train of supplies to Chiu-lien-chung had gone forward from Ying-ko, to prompt capture at its destination. A feature of it was the predominance of huge iron pots that were intended to be used as a kind of buried mortar, whose French name I forget. The Chinese esteemed them most powerful, their name for them being "earth thunder." At Ying-ko, only one of an elaborate system of well constructed mines about the place was exploded, and I never heard of "earth thunder" again.

Transports poured troops into the place until the winter closed in with a suddenness that prevented the landing of several cargoes of provisions and of ammunition. I talked with the master of one of the vessels whose ship had been overhauled and searched by the Japanese; he had been sharp enough to burn the sleeveless uniform tunics of the troops on board, and as the search was not thorough enough to discover the rifles, he was allowed to proceed as carrying only passengers!

These troops would swagger through the town in what may be called double Indian file, on their way to camps in the surrounding country, with their endless-appearing flags of large size and varied ornamentation. It was a diversion to watch their equipments closely, and I was never unrewarded for attending thus to a considerable body of them, for they always exhibited curiosities in the matter of fire-arms alone that were enough to evoke both pity and laughter. While the Mauser rifle (model of 1872) predominated largely, other arms were so numerous as to make the supply of ammunition purely and irremediably a personal question with each soldier. Thus I saw, in the hands of troops

actually in the field, Remington rifles of both 45 and 50 calibre, although I did not meet with any ammunition for the latter; Hotchkiss and Lee magazine-rifles, whose cartridges are interchangeable, although of so old a type that we could not use them in our Lee rifles—these bullets, with their deep and square encircling grooves for holding the lubricant, were a sore puzzle to Japanese army surgeons, since they are not continental; Winchester repeating rifles and carbines, usually of the model of 1874—not military weapons now, if they ever were; and a conglomeration of Martinis, albeit with solid-drawn cartridge cases that the Maxim gun forced upon the "conservative" British Army authorities; Sniders—with their "rolled" cartridge-cases; Enfield muzzle-loaders; Tower muskets; and a host of others, not to include carbines, horse-pistols, and many unclassifiable fire-arms, whose possession would delight the heart of a collector of such like uselessness out of the bare respect aroused for human ingenuity and vagary. The gingalls (Chinese: "two-man guns") were always a prominent feature of these processions, and ever picturesque to the view; they varied in construction from the most primitive portable cannon, through the match-lock—which is still in common use in China as the sporting weapon, for the flint-lock seems never to have had any very great prominence—and the percussion lock, to a breech-loading affair that was a clumsy copy of the Mauser, much amplified, but not rifled, and the ammunition for which was made by putting an enlarged Snider bullet into a 10-bore brass cartridge-case. One of these projectiles killed a Japanese soldier at Dai-ping-tsan, and was recovered from his body; but it was not until after Tien-chwang-tai that we could be sure as to what it was fired from, although I had maintained from the first that it was from a gingall and not from a piece of small ordnance. We had several patients from the gingall corps that had been "hoist with their own petards;" some of them had broken collar-bones from forgetting in the excitement of battle what a moderate charge of powder looked like, while others had severe powder-burns from the back-fire from touch-holes.

Nearly all of the muzzle-loading kind of

arms were pitifully ineffective as they were used—loose powder was simply poured into the barrel and then a greater or smaller number of round lead bullets about 12 millimeters in diameter dropped in upon it, so that it was almost impossible for it to be fired at a depressed angle, and only luck would cause all of the bullets to go entirely out of the piece. I saw only one with a rammer.

Late in February, a reinforcement to General Sung, that was of the nature of a rebuke for inefficiency, arrived and brought several thousand of the Imperial German Army's Experimental Commission's modification of the Mannlicher rifle. This is a magazine gun solely; that is, it cannot be fired as a single-loader without considerable manual dexterity, and as much trouble as this is not contemplated, all ammunition being supplied packed in magazines. This was the only modern rifle that was seen by any one at Ying-ko in Chinese hands, yet I secured ammunition which had been bought in great quantities for the Austrian Mannlicher and for the new (Spanish) Mauser, both of which arms differ in calibre as well as in other essential particulars from the German weapon.

On February 24th, 1895, they used this for the first time in force and offensively upon the Japanese at Dai-ping-tsan—which name the Japanese pronounce Tai-hpyeng-shan; it means "Great Peace Hill." As only thirty-seven of their men are acknowledged by the Japanese to have been killed or mortally wounded at this action, a reasonable utilization of the range and penetration of this admirable arm is precluded; and a very imperfect acquaintance with the firing-drill taught the Chinese, will afford a ready explanation of this matter. In it, the posture seemed to be the most important part; it was as impossibly unnatural and as uncomfortable as the heart of man could desire. For one thing, the feet were kept at least a meter apart; and the whole end and aim of the thing seemed to be to put the body into a turkey-cock's strut, and to frighten the enemy by this show of exertion and useless stress.

Nor were even these fine guns kept in good order, although a great show was made of protecting them by tying up their working-parts with rags that were, so far as I ob-

served, innocent of oil. The penalty for losing one of them was a hundred blows with the big bamboo, the refinement of the peculiarly atrocious cruelty of this implement being that a split in it opens with the force of impact upon the victim's hams and bites out the skin first, and afterwards bits of bared muscles and very live nerves.

On two occasions I was able to identify bullets as Chinese by the marks of rust and fouling in the pieces firing them; and I have had to use my foot to open the breech of more than one complaisant coolie's gun after having fired it, with his very obliging consent, at a mark. Of the bullets from the German Mannlicher that were recovered from wounds, I shall speak later.

We were continually on the lookout for the new Murata bullet with its copper jacket; but we did not know that it had not been issued, except in part to the Imperial Guard that used it subsequently in Formosa, and that a year must elapse before it would be the only weapon in use by the Japanese. Proof for the hyperskeptical that small-calibre missiles were used was found only at Tientsin in the form of a bullet itself. Nevertheless I am sure that some of our patients had been wounded by these missiles, either by their own comrades (two cases hereinafter described were, I think, thus injured), or by the Japanese with rifles that had been captured about Southern Chin-chow, whence many of our earlier patients came. Save only this comparatively scanty source of such wounds, all of the statements emanating from Ying-ko about new bullet-wounds, for some of which I am responsible, are erroneous.

This will serve to emphasize well the fact that it is a matter of rather uncommon difficulty to separate accurately the wounds of the old military rifles using lead bullets from those of the newer ones, in the absence of all or many correlative facts, which the cases do not infallibly carry along with them. I got fragments of bone with distinct marks of lead upon them, and even bits of lead itself, out of wounds which, I was almost sure, were necessarily from jacketed bullets; and I treated a case in which at least twenty military surgeons overlooked the wound of entrance of a bullet that had fractured a humerus at the cervical neck and emerged in two fragments.

I had myself been but little inclined to accept as such a small scabbed place behind the insertion of the deltoid muscle; yet this must have been made by the 45-calibre lead bullet, a part of which I recovered from the sleeve of the patient's shirt some weeks after he was wounded at a battle where there were no other arms of smaller calibre in use. Furthermore, one would not expect to find a jacketed bullet splitting up from contact with an extremity of a long bone at so short a range as fifty meters, nor a wound from one that could heal by scabbing under these circumstances.

The relatively large number of rifle-bullets that we recovered from wounds, very many of which did not involve bone-injuries, led me early to think that the old Murata rifle, which the Japanese used exclusively in China, with the exception noted above, was a low-powered weapon; and I was able to prove this assumption correct about a fortnight after the fall of Ying-ko by comparing its performance with our Naval Service small-arm, the Lee magazine-rifle, and with that of a representative Chinese weapon. I found it to be about one-third less effective than the first, notwithstanding its heavier bullet and its greater powder-charge (the difference being one gramme of lead and sixty-five centigrammes of powder, very small-grained). The efficiency of the Chinese weapon—a Mauser, model of 1872—was much below that of their adversaries, in greater part from lack of care of it.

The bullet of the old Murata is enveloped almost to its spheroidal head in a stiff paper wrapper, most of which is inside the cartridge case; and the lubricant lies between the bullet and the powder-charge. In quite a large number of the bullets that we recovered from wounds, the hemispherical cups in their bases contained a disk of this paper. Very often they wrapped themselves up—occasionally completely so—in the cloth and cotton wadding of the clothing of the Chinese victim; and, in view of the fact that this kind of clothing is almost never washed, being used constantly throughout cold weather without this formality, which would require renovation, the resulting infection was constant, though it was not as severe as might have been expected *a priori*. I take this to mean

the absence from that climate of the most favorable conditions for the existence of virulent micro-organisms; but some kind of a gas-forming bacillus was very frequent in wounds thus infected, and it occasionally aided somewhat in the localization of bullets by the circumscribed emphysema it produced in deep-seated parts.

A good many instances of tumbling in the flight of the bullet were noted. An old peasant who was watching a fight from the doorway of his hut received a bullet in his groin that imbedded itself, butt foremost, in his femur, about the junction of neck and head, leaving only its spheroidal head uncovered by bone; it was extracted with the very greatest of difficulty, owing to the depth of its situation and the difficulty of laying hold upon it. It was not in the slightest degree “upset,” as a machinist would say, save by our efforts to remove it—a fact that I ascribe to the softening of the bone in this region from age.

Many of these bullets were much distorted by striking the frozen ground, and a few by contact with rifles or with other articles of equipment. One showed plainly that it had been deflected by the muzzle of a rifle, striking thence against the abdomen of a man without sufficient force to penetrate into the belly-cavity; while another was removed from a man's back with its head expanded into a fan-shaped arrangement, one face of which was almost perfectly smooth, no loss of weight resulting; another, that had made a linear wound in a sheepskin coat, was found to have sheared itself into a roughly triangular prism between the steel loop for a gun-sling and the band to which this loop is fastened. But the most curious instance of all was a mass of lead weighing about thirty-six grammes, which proved on chemical analysis to be composed of two distinct parts, the compositions of which correspond respectively to the alloys of lead composing the bullets of the opposing forces. Careful inspection is adequate to show that it is made up of an old Murata bullet, almost entire, and about one-third of a Mauser bullet (model of 1872); and, as both bear the marks of the pieces that fired them, and the imprint of the coarse cotton cloth of the wounded man's trousers, the conclusion that

they struck together during their flights is irresistible. Doctor George Chismore, of San Francisco, California, arrived at this conclusion within the minute that the missile reached his hands; and out of the several hundred military and professional people to whom I have shown it, he was the only one that showed this amount of acuity with reference to the effects of fire-arms. I mention the chemical analysis as proof beyond cavil or peradventure, because I presume it to be the only case in which a man has been wounded by such a complex and curious missile. This wound was to the right side of the middle of the sacrum, a little beyond its junction with the ilium, to the head of which there was some injury, undetermined in extent. He recovered in about two months.

This was one of the few instances in which I have known the wounding body to have been extracted through the wound by which it had entered without enlargement of the latter. Shrapnel-balls superficially situated were sometimes squeezed out thus with the finger; but I am never confident of being materially aided by special patterns of bullet-forceps, and I still prefer a modification of what is known to the instrument-makers' trade as lithotomy forceps. Nor am I afraid to predict that the experience of the future will approve my decision. A shrapnel-ball was recovered that had *fractured* after partial shearing on the crest of the tibia.

The only Nélaton's probe amongst us was lost after its first trial (it was my property, but my servant did not remember to have seen it at the "clean-up," and our means of communicating were not then up to my describing it to him) upon a case for which I extemporized an electrical affair that proved very useful, imperfect as it was. I heard afterwards from one of them that Nélaton's probe was of very little use to the surgeons at Tientsin, and I proved to my own satisfaction that white pine as its substitute is ineffectual. My extemporized apparatus consisted of a long, hard-rubber pen-holder, through which I rove a double bell-wire, and adjusted the exposed ends of the latter at the tip of the probe so that reasonable force would not bring them into contact with each other. These were to be pressed firmly upon the supposed metallic foreign body *in situ*

while an assistant turned slowly the handle of the testing magnet that is used in all electrical wiring operations, the poles of the latter being connected with the two wires of the probe. Metallic contact between the wires at the tip of the probe would be indicated by the ringing of the magnet's bell. While we used this crude affair in many cases, and were enabled to extract many bullets that we should hardly have secured without it, it was far from satisfactory. The current was often strong enough to be painful and to cause strong muscular contractions; and I have occasionally seen contact indicated through articular fibro-cartilage, if not through blood-serum. I think it will be found imperative that the exposed points at the tip should be sharp but not too slender, and composed of some very hard metal, so as to be capable of penetration down to the metal itself through adventitious coverings and coatings that the projectile may acquire in the tissues. Some contact instrument will be necessary in locating jacketed bullets, some of which I have observed to have lost a great deal of their brilliant polish and to have begun to corrode after a very short period of implantation in living tissues. However, I shall not expect to find that a great number of these, relative to the number of wounded that I do expect in the next war, will be found to lodge in wounds, except, of course, in cases where insufficient cover, such as an 1862-65 intrenchment with its head-log, is proved to be such by a sagacious enemy.

One of the merciful attributes of these new bullets—for which slight thing, as it may well prove, I, in the capacity of a Navy surgeon, give abundant thanks—is their tendency to dive upon contact with the surface of water, even when at a very slight inclination to this surface. If this is a constant feature of their performance, it will tend materially to reduce the casualties in boats under the fire of small-arms and machine guns, many of whose hits heretofore have been *en ricochet*. Among about two hundred shots fired at sea from a German Mannlicher rifle I have never seen a ricochet; and, while I am not prepared to say that this is the customary thing with all new small-arms, I shall be surprised to find many grave exceptions. Under other circumstances, jacketed bullets

show much smaller angles of deflection upon resistance than lead bullets have been found to do; and I can only hazard an explanation of their tendency to dive by the assumption that they take hold upon the water as they do, in a way, upon snow and loose earth.—So much for the digression.

Of our patients individually, there is not much to be said; and I cannot think much interest would attach to the monotonous catalogue of wounds and case-papers that are too often closed by the statement that the patient disappeared (without subsequent emergence) at a stated time into the homogeneity of China. This factor vitiates all of our statistics, and is inseparable from such work where there are no guards to control convalescents. Our patients were not difficult to control in the sense of being obstreperous; and only opium-smokers gave any trouble in the way of bad behavior. Their insensibility to pain has been greatly exaggerated, as in my experience only one or two refused to accept the "sleep-medicine" (chloroform), and these were not badly injured but were obviously "playing to the gallery." One case of fracture of the humerus was noted on admission as remarkably oblivious to his very severe injury; but he nearly fainted a day or two afterwards while a confrère and I were putting on a plastic splint. And the groans from a single ward full of wounded were enough to have answered this myth of stoicism to the extent of a very emphatic contradiction.

Questions of policy in dealing with their unfathomable superstitions, and their deep distrust of everything foreign to China, modified frequently our treatment into something only feebly indicated. For instance, it was only with difficulty that amputation was assented to in the presence of severe secondary hæmorrhage; and one case died after its performance *in extremis*, having repeatedly refused to allow us to tie the popliteal artery. Dissection of his leg—one of our few opportunities of this kind—showed the posterior tibial artery wounded. It lay beneath the deep flexors of the leg, and the operation that we had proposed would have been much more likely to have succeeded than either Guthrie's or the more usual method of ligating the vessel in the middle of the leg.

Three hæmorrhages had occurred here, at intervals of eleven days. A tibial fracture from the bullet that wounded the artery had united without much callus and with a very small degree of deformity. On the whole, secondary hæmorrhages were not numerous, and only two deaths, one of which was of doubtful cause, were ascribed to it.

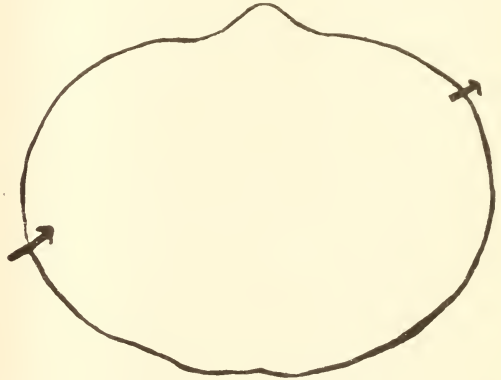


FIG. 1.—One-fourth size. Plane of third lumbar spinous process, one inch above umbilicus. Plane of bullet, one-half inch below this.



FIG. 2.

The accompanying illustrations show three rather unusual cases. Figure 1 is reduced to a trifle less than one-fourth its natural size, from a tracing from lead tapes; it is

taken at the tip of the kyphotic prominence shown on Figure 2, whose plane is 2.5 centimeters above the plane of the bullet, and 5 centimeters above that of the umbilicus. Free hæmorrhage ensued from both wounds and from the mouth; but recovery was uneventful, in spite of great exposure, constant fear of capture, and deprivation of food. The patient thought the direction of the bullet the reverse of that which I indicate; but I am pretty well satisfied, from the nature of the two wounds in his body as well as of those in his right fore-arm (Figure 3), that



FIG. 3.

he was honestly mistaken. He admitted that his company was badly officered, and that they were receiving fire from both flanks. In Figure 4 the source of the hæmorrhage that the rather ample waist-band shows evidence of was probably from an anterior intercostal artery. This bullet emerged about the middle of the right scapula; nevertheless, its recipient ran a mile without stopping—so he told me.

I never saw anything like real shock from wounds themselves, but I only saw a single

case soon after the reception of a severe injury; this was a small boy about eight years of age, shot quite inhumanly by a Japanese sentry at one of the city gates. He sank very rapidly from internal hæmorrhage before our eyes, the "policy" aforesaid dictating non-interference. The wound was through the right side, below the middle of the twelfth rib, emerging near the middle of the right linea semilunaris. There was less nervous disturbance in the case than I was prepared to see; and shock after operations is not often great, I think.



FIG. 4.

Four (perhaps five) cases of tetanus were observed, all quickly fatal. One appeared to follow infection of a foot gangrenous from cold. This case and another occurred in a ward that had once been used as a stable and very imperfectly cleaned—which is significant in view of a late Italian work regarding the association of the *Bacillus tetani* with the *B. coli commune*. No other cases were seen of the surgical diseases commonly met with

in primitive and poorly equipped military hospitals; which fortunate circumstance I attribute to the constant use of wet antiseptic dressings. We were able to keep enough



FIG. 5.

carbolic acid and boric acid on hand to dress daily the infected wounds; and these moist dressings were covered over with oiled paper of a superior quality that seems a staple



FIG. 6.

article in Northern China, to the comfort and convenience of every one concerned. I think that some approved plan of applying a

form of this dressing will long be a necessity with military surgeons, because of the great discomfort that attends dry dressings when there is much extravasation into tissues adjacent to the wound, a condition always found in wounds showing "explosive effects." I could never respect that surgeon's ideas of the processes of repair in such cases, who fills a crater-like wound of exit with iodoform (that probably contains pus organisms of active potentialities), and bandages up as if the wound were the sequel of a completed operation.

The imperative necessity of immediate trephining in all cases of gunshot fractures of the skull, was illustrated sharply by some cases with an unfavorable termination in the first part of our work; those subsequently received showed the unquestioned benefit of this procedure, and all furnished object lessons of the truth that no surgeon is apt to overestimate the damage that a bullet can inflict upon the inner table.

We saw only three patients with sword and bayonet wounds: the first had a cut on the nape of the neck which an exasperated Chinese officer had inflicted as the subject was endeavoring to escape the perils of battle; the second was also a fugitive, whom the Japanese did not trouble to pull out of a place of hiding, but gave a dozen bayonet stabs, leaving him for dead; while the third had wounded himself in his haste to escape from the enemy. I have never been able to understand how he managed to do it with his own bayonet. He had a bullet wound besides, and for a long time the bayonet wound was considered as one of the effects of this bullet — until, in fact, a careful examination of his clothing and judicious questioning brought out the truth. This examination of the clothing was of the greatest assistance to us in elucidating many other cases, and it should never be omitted when time is not too precious.

In a paper contributed to the *Southern Practitioner* in 1895,* I described the woful limitations of Chinese practice; and many inquiries subsequent to the date of that letter have added nothing worthy of respect to my

* See MEDICAL AGE, September 10th, 1895, page 541.—ED.

acquisitions in this direction. We found three patients into whose wounds metallic mercury had been poured in what I shall always consider a spirit of devilish charlatanry. One of these had a shattered elbow-joint, but his faith in his own race prevented his trusting us further than a first dressing. Expectant treatment of these joint-injuries sometimes succeeded; both of our shoulder excisions died.

I failed in an attempt to isolate and to study carefully a chromogenic saprophyte that appeared in perhaps half a dozen cases. It was a bacillus, and turned out a salmon-colored pus, the coloring matter of which appeared to be crystalline, resembling under the microscope the crystals resulting upon the inter-action of glucose and phenylhydrazin. Its presence in wounds did not appear to delay their healing to any appreciable extent. I have referred to the gas-forming bacillus of clothing-infected wounds: the odor of its gas was most villainously offensive; otherwise it might have escaped notice in the surroundings in which it was encountered.

I tried Arbuthnot Lane's suggestion of an emulsion of sulphur for disinfecting extensive wounds known to be badly infected, and with rather encouraging results; but it added so unstintedly to smells already well-nigh unbearable that its usefulness was not fairly proved. One of these cases was a man whose leg had been frightfully mangled by the bursting of a shrapnel almost against it, with the curious effect of splintering the tibia into long slivers and introducing parts of the deep muscles of the calf between them; this must have been the vacuum effect of the explosion. A good-sized piece of the shrapnel-case went upward a little distance into his thigh. Even after two days these wounds were perfectly clean, though blackened deeply by sulphides; but the patient could not get rid of the idea the foreigners wanted his leg to make medicine of, so he had his friends remove him and leave all of my dressings behind.

Our patients came from nearly all of the actions after Ping-yang in Corea; and, up to the time of the battle of Dai-ping-tsan, they had come to us nearly entirely by their own efforts. One splendid fellow paid out twelve

taels (about eight dollars) of his own money for litter-bearers to come 120 miles; and a third-rank mandarin was brought, by a circuitous route to preclude capture, no less than 300 miles in a most clumsy litter made of poles and sorghum-cane, with a knee-cap shattered by a bullet, and the leg flexed upon the thigh at a very acute angle. He died—somewhat unexpectedly to his attendant after a transfer into his charge—following a rearrangement of patients after Dai-ping-tsan: I always thought he committed suicide. Four other cases of infected knee-joints went steadily on to septicæmia and death, owing to the imperfect drainage that was tried in every case over my vigorous protest. One wound was doing well at the time of the death of the patient from pneumonia, and one patient's life was saved by a timely Carden's amputation by Doctor Christie, an admirable representative of the good school of Edinburgh. Two cases in which this joint was entered by a lead bullet remained uninfected and recovered without loss of function; and a case came in after Dai-ping-tsan that had had a bullet pass from the centre of the calf to the top of the patella (the cotton wadding of his trousers indicating unmistakably this course), a wound which seemed almost without inconvenience to its subject. He walked about a hundred meters into the dressing-place twice, because he thought he was being neglected in the absence of daily dressings; and when he ran away, ten days after the receipt of his wound, he left behind the crutch that I had endeavored to impress upon his mind as an important factor toward preserving for him a useful limb. I am reasonably sure that this wound was an accidental one inflicted by a comrade with a German Mannlicher rifle; and, by a coincidence of which surgical records are full to overflowing, the same day showed us a man with a bullet wound extending from the central point of his cricoid cartilage to three centimeters external to the superior angle of the right scapula, and whose greatest inconvenience was from paralysis induced by injury to the inner cord of the brachial plexus: he was not even hoarse from the injury to his larynx. He ran away at the same time as did the preceding case.

Frost-bites were almost the rule after the

action last mentioned; but some of the Port Arthur garrison that had waded around a promontory occupied by the enemy to escape them, had their feet frozen. However, it was rare to see a Chinese soldier that had been frozen without a wound or some other circumstance sufficient to account for it; but it was common enough with the Japanese, who seemed never to believe our accounts of Chinese endurance of the cold. At Daping-tsan, where the temperature on a bright forenoon was -10° F., they had 1000 men disabled from cold alone. Nevertheless, their men seemed to stand the exposure well; if many of them suffered, they did whatever they attempted to do.

The offensiveness of our cases was something that I shall have to live a very long time to forget. The only detail that I shall here resurrect is the bare fact that I begged about 250 kilogrammes of junk—mostly composed of scraps of new bolt-rope—from the executive officer of the *Petrel*, which her crew picked into oakum without further complaint than their statement of the disinterestedness of their action implied.

One wretched inland-bred man had his left arm broken near the elbow, and both hands and both feet were frozen. As if this were not enough, well meant kindness upon the part of some unobservant attendant, by placing him at the fire-end of a *kang** his first week with us, blistered all his points of major contact with it from his shoulders to his calves. He was as grateful a patient upon his eventual recovery, with a greatly diminished quota of fingers and toes and a drumstick humerus, as I desire to see; but this satisfactory state of my mind did not

wholly prevent my feeling the impulse to murder promptly and in a gory manner those surgeons with whom I could not communicate freely when they laughed at the size of the lump of callus above his very useful elbow-joint. His dialect was an unknown one to all of our native assistants and "foreign teachers," as the missionaries are euphemistically called in the politest of Chinese characterization; so that my small and almost forgotten lessons in the wonderful sign-language of the Indians of the southern part of the West was the basis of our extensive communication. In this, he would almost daily promise me the *kotow*—i.e., prostration before one with the face in the dust, which rather curiously means quite a great deal to the usually spiritless Chinaman,—and I would indicate the wrath with which I should reject it. But he was as good as his promises when I was leaving him for the last time; and I hauled him up onto his knees by his queue and fled out of the maimed presence, almost willing to revise some of my notions of the usefulness of war. He had called me his "heavenly father" early in my ministrations to him, to the utter scandalization of an admirable man that was a most patient and long-suffering interpreter for me.

Before quitting altogether the subject of the frost-bitten, I cannot forego to enjoin the greatest of conservatism upon all who have to deal with such without previous experience. My luck had led me to take at his word, literally, the Edinburgh surgeon who asserted the great proneness of gangrene to follow operation on these cases; so I rarely used a knife, even in disarticulating exposed phalanges, etc. I saw some very different experiences as the result of wishing to do a neat operation: one case that wanted a short leg-stump after losing his foot from frost-bite many months before, lost the whole of his leg by successive operations by a most careful surgeon, the final one through the lower thigh eventually succeeding.

Another pet of mine, of whose inordinate dread of pain I made endless fun, also in the sign language mostly, considered that this form of outward reverence would repay my attentions to his forearm that had been horribly lacerated by a fragment of shell, and that healed perfectly after the removal of

* This is an arrangement of flues through which the smoke and heat of the fire in a house or in an inn is made to traverse many times a platform upon which the inmates sleep, covered over with their clothing of the daytime and, perhaps, with a cotton-wadded quilt or two. It is used, I believe, in most very cold countries in some form or other; and it is the most prominent feature of a northern Chinaman's residence. Tongue cannot tell the wearisomeness of doing dressings upon such a platform, as it had only one free side and had to be stood upon; so that the patient was for all practical purposes on the floor. This same difficulty got bedsteads into all the Japanese military hospitals, and kept them there.

nearly the whole shaft of the ulna; for he charged me the cost price of his sheepskin coat, although I do not believe any Chinaman would have consented to wear it in the state in which I received it. I used it to learn the appearances of the holes that 45-calibre bullets made in sheepskin, while we were yet uncertain about whether the Japanese were using jacketed bullets. In this same spirit, these patients forced me to pay for the mending of their clothing in those cases in which I had thought it desirable to cut out small pieces of cloth showing the bullet-holes, to keep as parts of the records of uncertain cases. One of the dressers came to the assistance of his countrymen here, however; for I am sure that he paid for quite a number of them himself, but he would never render the bill to me.

In closing these reflections upon the Chinese, I must protest that I have stated these discreditable facts with no purpose ulterior to showing how wide is the remove of their real selves from ours. This invariable *quid pro quo* idea incapacitates them as soldiers; and an extension of this selfishness will not allow them to perform actions that we think the meanest of us would be glad to do. A courier of General Sung told us he had passed by, without an attempt at assistance, a wounded Chinese soldier who was still alive on the battle-field of Kang-wan-tsai a week after the fighting, when the weather was bitterly cold; and it was a matter of common assent that Dai-ping-tsan was the first field from which Chinese wounded had ever been removed by soldiers in anything like a thorough and systematic manner, the time required in this case being reprehensibly long. Again, the dead at Tien-chwang-tai (Japanese call it Tien-sho-tai), which was captured and destroyed by the Japanese early in March, remained unburied until many, if not all, of the bodies had been eaten by dogs. Indeed, I do not know that they were ever buried at all; but I am sure that few or none of them were in the calendar month in which they were killed. It is true that I did not visit the battle-field, as the most of my messmates and acquaintances did—because I had been selected to illustrate clinically an animal parasitic skin-disease that was a novelty to all available medical talent, and the wealth

of boils that followed its cure by the desperate use of chrysarobin would have prevented me from riding the gentlest pony ever seen in Manchuria, even if equipped with a protective deck of feather-beds a meter in thickness. Nor was my faith equal to my trusting myself in a Pekin cart, a form of vehicle without springs and no discredit to a class of purely business wagons every representative of which is expressively termed a *mellow* in the land of moonshiners.

The Japanese established a hospital in one of the largest inns of Ying-ko the day after the battle of Tien-chwang-tai, in which I saw some small-calibre bullet-wounds. They had been made by the German Mannlicher rifle at a shorter range than 500 meters, for the most part, as nearly as I could ascertain; yet many of the missiles had lodged in the wounds, and nearly all of them were scratched by rust in the guns that had fired them; some of them were a good deal corroded in this short time of inclusion in living human tissues. The ammunition which the Chinese had for this rifle was partly of German manufacture and partly of English, the former being less than a year old, and the latter undated. I recognized bullets of both kinds in the Japanese specimens—which proves nothing, as all the ammunition had undergone a tropical voyage; hence its deterioration would be almost the same probably within that interval. One of these missiles had tumbled and bore a deep indentation for nearly its whole length; its jacket was split for a short distance at its base, with very little separation from the lead core.

These wounds had all been packed with sublimate gauze, and usually enlargement of them had been practiced; therefore their characters were not evident. This packing was continued rather long, so I thought—four days or more. A case of fractured thigh had been debridged, resected and wired in a temporary hospital, and I saw the application of permanent dressing, an anterior splint of plaster-of-Paris worked into a skein of hemp twine being the retentive apparatus. Another patient—an officer—presented perforation of both femora by the same bullet without fracture of either.

The administration of this hospital was most admirable in every way. It was under

the direct management of Doctor T. Kako, with Doctor Z. Kikuzi as supervisor of division; the latter has done some rather elaborate experimentation regarding the effects of the old Murata bullets under direction of some authority at Berne, Switzerland, and I was able to interest and, in a case or two, to puzzle him greatly with the specimens that have been described in part hereinbefore. He is the originator of the use of charred straw as a surgical dressing.

This hospital was removed exactly at the time pre-arranged (although a most violent snow-storm was raging), about a week after its establishment, to Kai-chow, about thirty miles to the westward. It contained a single Chinese soldier whose elbow had been resected a few days previously. At my second visit my companion, Doctor D. Christie, of the Moukden Medical Mission, who spoke Chinese well enough to make everything but conviction to this abjectly terrified wretch an easy matter, allayed his fright as much as he could; but the obviousness of the exhibition character of this case prompted me to think and to say that it would appear at length that there were few others of his comrades under treatment by the Japanese. It turned out that there were in reality none; and—what was worse—the efforts of some well intentioned, but possibly not quite fair-minded persons, to have these wounded wretches brought into Ying-ko for treatment, were not at all favorably received. Thus, only a few of those wounded at this the last battle of the war in Northern China were treated in the so-called Red Cross Hospital in Ying-ko; and every individual of these had undergone sufferings simply frightful to contemplate.

I shall not presume to decide the responsibility of belligerent nations toward the people that they wound in the prosecution of war, although I may venture to remark that it is an item to be considered in making up a just estimate of the relations of one nation towards another.

Our patients were not regarded as prisoners either by us or by them; and none of the many irregularities of our system of doing Red Cross work excited their unfavorable comment, except the absence of Japanese wounded from our wards. These had been killed swiftly upon capture by the Chinese,

one military coolie being kept under treatment in prison for a few days only to disappear at the fall of the town. As far as I know, he was never heard of afterwards; and it is my unalterable belief that he would have been murdered with great brutality at least by our Chinese patients, if he had been given into our charge. Too much was done by the influential part of the community to excuse the convenient way the Chinese had of deciding that every Japanese they captured was a spy, and of executing him as if he were a highwayman without the formality of trial.

We left our dock about the 10th of April, 1895, and sailed for Shanghai about two weeks later, putting an abrupt end to the fluttering of the handkerchiefs of our English friends by manning the rigging and returning the cheer that the war-time crew of a Japanese gunboat lying in the river below our anchorage had given us with a will, as we were passing her.

U. S. S. *Petrel*.

A MASQUERADE OF FATTY DEGENERATION—AMYLOID.

BY EPHRAIM CUTTER, M.D., LL.D.

What is it? An abnormal body found in animal bodies which is like wheat starch in size and physical appearance, and hence its name, "like starch"—that is, amyloid. Or, in the words of the Micrographic Dictionary:

The so-called amyloid substance of Virchow consists of a nitrogenous matter closely allied to albumen. It is colored deep reddish-brown by iodine, the addition of sulphuric acid sometimes producing a bluish-black or violet tint; it occurs in tissues and organs affected with the waxy or lardaceous degeneration, as the small arteries, the liver, the kidneys, the spleen, and the lymphatic glands.

Vegetable amyloid is a name given by Schleiden and Vogel to a peculiar modification of vegetable substance, met with in the thickening layers of the cell-walls, in the cotyledons of certain Leguminosæ, viz., *Schotia speciosa*, *S. latifolia*, *Hymenæa courberil*, *Mucuna urens*, *M. gigantea*, and the tamarind (*Tamarindus indica*); also of the common white haricot bean. When in a dry condition, it is of a soft, horny consistence; when wetted, it softens, becomes gelatinous and transparent; it is soluble in boiling water, strong acids, and in solution of potash, but not in alcohol or ether. It is colored blue by iodine, like starch, the compound being soluble in water with change to a yellow color.

The "amorphous starch" described by Schleiden in the seeds of *Cardamomum minus*, in the rhizomes of *Carex arenaria* and sarsaparilla, seems scarcely distinct from amyloid; it forms a thick viscous layer lining the cells. Amyloid forms a transitional substance between starch and bassorin and cellulose, and probably presents modifications approaching more nearly to one or other of them in different plants.

This quotation is sufficient to declare amyloid a masquerade of fatty degeneration, but its connection is also shown—by its being a carbohydrate nitrogenized, and by its being found in the early and later history of fatty degeneration; so that its appearance is a harbinger, as well as a notifier of the departure, of fatty degeneration.—It has not seemed to me to be so abundant in the fully developed stages of fatty degeneration.

It is made to disappear by the same means that cause fatty degeneration to depart. It is organized from the same protoplasm as fats. And finally, it conforms to the same law of production as fatty degeneration.

For example, *vegetable* amyloid was observed by the writer in an apple which had on it a facet caused by the pressure of the head of the barrel in which it had been kept. Again, a study was being made of the mycelia of the fungus of rotten apples. Noting one apple which appeared to be decayed, the rot was cut out for examination, when, instead of the soft punky feel usual to rotten apples, the apparently decayed mass had the resistance of a solid mass like glass; further inspection showed that the "rot" was made up of amyloid bodies almost identical with the amyloid found in the urine, blood, and on the skin of man. As the principle is laid down by the English that fatty degeneration is caused by retarded and impeded functions, and pressure certainly retards and impedes the interstitial parenchymatous functions of the apple when squeezed by the barrel-head so as to make a permanent facet, the writer feels justified in saying that the causes of fatty degeneration and of amyloid are alike. This view throws great light on the treatment and clinical management of amyloid. It should be added that along with the amyloid bodies found in the apple squeezed, fat globules and granulas were observed, which makes my position stronger.

By some writers amyloid has been regarded

as a normal constituent of the brain, for example, because its presence had not been indicated by any deviation of health. Regarding this it may be said that so long as fat is a healthy tissue in its proper place, and is a diseased tissue when it replaces another tissue (as muscle, for example), there is ground for calling amyloid a normal animal body sometimes, and abnormal when it replaces other tissues—as a mammary gland for example; but, on this ground, amyloid should be found in every brain and in every body, as fat is. But amyloid is not found in every body. When it occurs in an apparently healthy body, the status of the observer must come into account: if he has discarded the search for fatty degeneration in the blood, the urine, or on the skin, there is room for doubt as to the accuracy of the diagnosis of perfect health.

Again, it is possible to conceive of latent diseased systemic conditions that elude an observer, as bullets did before X rays were used. There is, according to Reinsch, a division of parasites of plants whose existence is innocent to the hosts, and another division of parasites who are nocent to the hosts and kill them.—Amyloid may be like the innocent parasites. But whether parasites exist on the hosts nocently or innocently they are parasites just the same. While I am willing to accord all credit due to those who differ and affirm the normality of amyloid, still amyloid has a clinical significance worthy of the attention of every one who practices medicine, for this reason: that it is removable by Nature's metabolism or transformation when the causes are removed—when she is fully sustained in her dynamic, potential and kinetic energies, so that biological functions are not impeded nor retarded, but the chariot-wheels of life run smoothly at normal velocities, duly regulated, governed, controlled, and provided with a good reserve of vital energy. Amyloid may be regarded as a blessing in disguise, giving time and space for repentance from biological sins. Otherwise destruction would come on sooner than now. (Salisbury.)

The general principles of treatment are those of fatty degeneration: Removal of causes of retarded and impeded functions: Discarding fats: Discarding carbohydrates

in excess: Drinking hot water, so that the streams of life may run free and clear: Exercise, proper clothing, baths, and hygiene: Galvanism and electricity: Music: Beef, mutton, and whites of eggs: Vegetable food in abeyance: Medicines—tonics, digestives, means to obviate idiosyncratic hindrances, according to the judgment of the physician.

Finally—call things by their right names. If one dies of amyloid heart, say so; don't call it "heart failure," putting a result for a cause. They did things better two centuries ago. I have a Latin medical inaugural thesis published by a German candidate, in which reference is made to a work published about 1700 A. D., entitled "*Causes of Heart Failure.*"

120 Broadway, New York City.

CELLULOID BANDAGES.

Celluloid dissolved in acetone has been used by Landever and Kirsch as a substitute for plaster-of-Paris, silicate of soda, etc., and is said to be considerably lighter than even the latter and not very expensive. The solution is rubbed into each layer of gauze or crinoline bandage, an ordinary kid glove being worn for the purpose, as otherwise it dries on the skin and can only be washed off with acetone. From four to six layers are required, and three or four hours are necessary for it to dry completely. There is no real objection to its use, and it presents a decided advantage in the manufacture of spinal and thoracic jackets, inasmuch as it will last for months, is readily cleaned, always presents a smooth surface, and is impervious to all discharges.

GELSEMIUM.

This is one of the best remedies for the relief of "cold in the head;" drop doses of the fluid extract given hourly will usually secure the best possible results.

Given with quinine, gelsemium prevents ringing in the ears. It is also almost a specific in ovarian neuralgia. The physiological effects are ptosis and dimness of vision, which, however, are readily dissipated by means of amyl nitrite or small doses of any good spirituous liquor.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., OCTOBER 10th, 1896.

Editorial.

A SMALLPOX EPIDEMIC.

Some of our readers, at least, must be aware of the fact that a serious outbreak of smallpox raged during six months of the present year in the English city of Gloucester. Now that the returns are all in regarding the epidemic, it affords a lesson which communities all over the world may well lay to heart—a lesson that also most effectively refutes the claims which have been advanced from time to time by the anti-vaccination ilk.

There is a very strong anti-vaccination society in England, and it so happens that Gloucester was one of its pet centres. Many of the citizens of this noted cathedral town preferred to act on the dictation of their crude ignorance rather than abide by the conclusions of science and experience. Fortunately for science, and unfortunately for experience, they have had a bitter awakening to a sense of their folly. Out of a population of less than 45,000 people, 2063 individuals were attacked and 443 succumbed to the ravages of the malady.

In February, 1887, a resolution was passed by the Gloucester Board of Guardians of the Poor, "that the Vaccination Office take no further steps in vaccination prosecution until authorized by this Board." (The Board of Guardians is the authority that deals with free public vaccinations.) Previous to the date mentioned, this Board had enforced the vaccination law by prosecution of those who did not have their children vaccinated before they were six months old. The Central Local Government Board in London, which controls and supervises the Boards of Guardians

throughout Great Britain, apparently neglected to take proper notice of this dereliction of duty on the part of the Gloucester Board, contenting itself with academical remonstrances to which the Gloucester people responded with polite evasions.

In 1888 the Royal Commission on Vaccination was appointed, and this appears to have been taken by the Gloucester and some other Boards as a tacit admission on the part of the Government that the question of compulsory vaccination was an open one.

The following tabular statement of the decline of public vaccination will show how soon the class of population for whose benefit gratuitous vaccination is provided began to take advantage of the option which was thus offered them:

	Total Vaccinations.
1886.....	1095
1887.....	472
1888.....	140
1889.....	95
1890.....	60
1891.....	34
1892.....	39
1893.....	38
1894.....	34
1895.....	371

Total vaccinations in ten years, 2378. Total vaccinations in nine years (1887 to 1895), 1283. During the ten years 15,682 children were born in Gloucester, of whom 3176 died, leaving a balance of 10,128 to be accounted for.

The increase of vaccination in 1895 is explained by the fact that toward the close of that year the epidemic which had prevailed through Western Europe made its appearance in the Cathedral City. Although during the whole of the previous year there had been but thirty cases, in January 1896 there were fifty. Then began a race between the City Council and the epidemic. One temporary building was erected after another to provide isolation arrangements. By March 1st it appeared as if smallpox would paralyze the commerce of the city; the ravages of the disease had become known outside, and a boycott was proclaimed against the borough; finally the threatened financial catastrophe led the citizens to appeal to the City Council to take immediate steps to arrest the epidemic.

The medical men of Gloucester, in meeting assembled, declared the only possible measures were the isolation of those attacked and the vaccination and revaccination of those who were not protected against the disease. The advice was acted upon, and the Board of Guardians rescinded their former resolution and ordered the enforcement of the vaccination laws. From first to last upwards of 36,000 vaccinations and revaccinations were effected, so that by the end of July the epidemic was stamped out of existence.

Considering the foregoing, it is not to be wondered at that Gloucestershire has established a society—under the presidency of Earl Ducie, and which includes on its council all the leading men of the shire—"the object of which is to counteract the mischievous efforts so persistently made to discredit the name and work of Edward Jenner, and to bring again to the mind of the nation, at the centennial of his great discovery, the immense benefit he conferred upon mankind."

For the material herein embodied we owe the editor of the *Mail and Empire*, of Toronto, the thanks of THE MEDICAL AGE.

HAY FEVER.

Since the recent publication in THE MEDICAL AGE of articles upon this malady, and particularly since the season has passed, it appears as if this subject has attracted general attention.

In the *Annals of Ophthalmology and Otolaryngology*, Doctor Strangway denies the possibility of direct irritation by pollen on sensitive areas, and at the same time advances a theory that a toxine is generated from pollen by a fermentative process in an alkaline solution; that this toxine produces vaso-motor paresis, with disordered secretions, which by irritation cause paroxysms of sneezing. Neutral and alkaline solutions affect the pollen but little, while very dilute acid solutions rapidly cause a grayish exudate; hence the belief that alkaline solutions assist to form the toxine, and that an acid prevents such formation. He recommends a douche containing two minims of acetic acid, four grains of salt, and two and a half grains of resorcin, in one ounce of water—though he adds "resorcin is not always needed." Internally he adminis-

ters hydrochloric acid, one to two drachms daily.

In the *British Medical Journal* Doctor Abercrombie prescribes pills of valerianate of zinc, three grains each, one three times a day, after meals. To be beneficial, he declares, "the pills should be commenced a full month before the expected onset of the attack, and continued for at least thirty days after the hay-fever season has passed." Locally he recommends a five-per-cent. watery solution of hydrochlorate of cocaine employed as a spray, and also a snuff composed of bismuth and morphine. "A patient who used the valerianate of zinc for three successive years had no return of the attack."

Doctor Ochme, in the *Homœopathic Recorder*, relates the case of a lady who "before marriage had been under treatment for hay fever, with indifferent results." After marrying a photographer she undertook to assist him in the work of burnishing, the part which fell to her being to first rub a piece of dry Castile with a dry cloth, and then apply the latter to the face of the photograph. By this means she inhaled a considerable amount of soap dust, and has since been free from "hay fever" paroxysms. Another lady, who had suffered for some years from "hay fever," was also effectively relieved by inhaling soap dust—whenever the symptoms appear she rubs a piece of dry Castile soap with a dry cloth, inhaling the dust from the latter, which relieves instantaneously.

None of the claims here made can be considered of any particular value, except as they may be applicable to isolated individuals. As before pointed out in these columns, the real need is to determine the pathology of each individual case and to apply the remedy in consonance therewith.

PERNICIOUS ADVICE.

An item is going the rounds of the lay press to the effect that California borax—though why *California*, is beyond us—in the proportion of half a teaspoonful to each quart of milk will keep the latter sweet for several days. It is added:

The borax should be scattered over the top of the milk, which should be lightly stirred and then

put in a cool, dark place, care being taken that the borax is added while the milk is quite fresh.

The above proportion may be slightly increased or decreased according to the weather and the length of time the milk is required to keep. Cream may be kept sweet in the same way.

Boric acid, salicylic acid, and a number of other agents have from time to time been recommended by irresponsible parties as preservatives of fruit, milk, cheese, butter, etc.; moreover, salicylic acid does enter into certain fruits that are canned and tinned. The fact is, however, none of these agents are of the harmless character generally assumed, and whether added to milk or fruit are apt to be most pernicious. Salicylic acid is particularly apt to upset the stomach, and moreover has a powerful depressing effect upon the central nervous system, inducing collapse, cyanosis, and possibly fatality. As regards borax and boric acid, they may be considered as for all practical purposes identical. While both are antacids, they are very likely, particularly in milk, to occasion oppression of the stomach, nausea, and vomiting; and being absorbed into the stomach, they are afterwards eliminated by the kidneys and other secreting organs, and as they have been repeatedly detected in the blood of the portal vein, in the bile, and in the saliva, there is every reason to believe they have an influence on the processes of chymification, thereby inhibiting in greater or less measure the process of assimilation.

Deranged digestion, a scorbutic condition of the economy, and sometimes an impetiginous eruption, are among the ills that may be provoked by the use of these agents for the preservation of foods of all kinds. In milk, especially during warm weather, changes are apt to be induced by the addition of borax owing to the presence of lactic acid, which may greatly exaggerate the ills already mentioned.

The sooner people learn that the old saw to the effect "if it does no good it will do no harm" is an absolute falsity, the better. There is no such thing as a harmless agent: there must be an influence of some sort either for good or for bad, and when the good action is not demanded the bad must certainly supervene. The general idea that borax is a harmless agent is certainly per-

nicious and cannot be too quickly driven from the minds of the laity. Very serious accidents have happened from the ingestion of very small doses of borax, which, whether from "California" or found in the general market, is at best a very uncertain product as regards purity in chemical composition.

EDITORIAL NOTES.

Secret Cancer Cure.—

The following represents the best of the secret (so-called) "cancer cures," and is one for which originally \$500 was paid:

A pound of fresh or carefully dried red clover blossoms is placed in four quarts of water, boiled until but two quarts remain, and then strained and evaporated until of the consistency of molasses. To this extract one drachm of finely pulverized blood root is added and thoroughly mixed, a little water being used if required. This is to be spread on the cancerous tumor and covered with oiled silk and allowed to remain twelve hours continuously. When the cancerous material is absorbed or sloughed away, an ointment is applied containing one ounce of fir balsam, two ounces of mutton suet, and two ounces of gum camphor: the balsam and suet are melted together until thoroughly united, and the camphor stirred in while the mixture is cooling.

The foregoing is practically harmless, but it must be remembered that the so-called cases of "cancer" reported cured by such measures are very far from being forms of malignant disease.

Fake Medical Schools.—

One of the Chicago concerns, which has extensively disseminated its literature during the last year, received recently a stinging rebuke at the hands of Judge Clifford, who at the same time rendered a decision which revoked its charter. The Court declared that this institution was a "fraud, exercising powers not granted by its charter," and condemned in strong language the character and doings of such "schools" as are "operated for such purposes as exchanging a piece of sheepskin for a fee." This institution was

granted a charter in April, 1895, and is the concern so completely exposed in these columns not long since. It has been a frequent source of complaint on the part of druggists and others.

Now let Wisconsin suppress the "school" of like character which exists in Milwaukee.

A Just Verdict.—

Doctor Adamkiewicz has been expelled from the Medical Society of Vienna for quackery. He patented a nostrum by the title of "Cancroin," pretendedly a remedy for cancer, and the decision of the Society was arrived at during full session and only after careful deliberation and full hearing of the evidence.

If the societies in the United States and North Germany were equally as careful regarding their membership, there certainly would be a great diminution in membership.

Drug Eruptions.—

Doctor Blackadder, of Montreal, names the following as capable of giving rise to scarlatinoid eruptions: Atropine, belladonna, sodium salicylate, phenacetin, copaiba, turpentine, iodoform, arsenic, chloroform, santonin, mercuric salts, ipecac, sulphur, strychnine, and iodine.

The "Windy City."—

No wonder Chicago is thus termed, if it is true, as claimed, that there are seventeen medical schools within its borders. It is further said that ninety-eight out of every hundred physicians hold some sort of connection with a medical teaching body.

Aneurysm.—

Solis Cohen recommends hydrated calcium chloride, sixty grains daily, in conjunction with rest and other suitable adjuvant measures.

This is certainly worthy of trial and has the merit of plausibility.

Asthma.—

A recent writer recommends sodium nitrite in ascending doses from one-fourth grain to five grains three or four times daily. Why this should prove better than nitroglycerin or amyl nitrite, we fail to understand.

Items and News.

Dietetic Value of Cheese.—

The minds of agriculturists have of late been greatly exercised to find some explanation for the depression in the Cheshire and Cheddar cheese trades. From the remarks of the Duke of Westminster at the Cheshire Dairy Farmers' Association it would appear that the lessened consumption of this, at one time, popular article of diet is due in great measure to a growing belief that it is inferior as a nutritive agent to tinned meats, and that this view is held by medical men. The assumption, we are convinced, is by no means correct, and from analyses conducted on behalf of the *Medical Press and Circular* we are in a position to state that Cheddar cheese of British manufacture contains a much higher percentage both of flesh-forming substances and of fats than meat, even of the finest quality. This view was held by no less an authority than the late Doctor Parkes, of Netley, who persistently maintained that as cheese contained a very large amount of albuminoid material in a very small bulk it was one of the best foods for soldiers in time of war. Doctor Thudichum, in his recent work, *The Spirit of Cookery*, states that cheese "is the most valuable animal food obtainable," and that it is "from two to three times as nutritious as the same money-value of ordinary meat." With the purely agricultural aspect of the subject we are not directly concerned, but it is our duty to point out that the argument frequently adduced that Cheddar cheese is less nutritious than meat is based on an entirely erroneous assumption. —*Medical Press and Circular*.

Misrepresentations by Medical Colleges.—

Unenviable notoriety has been given a local coeducational medical college of recent vintage, by legal proceedings commenced against it by an Eastern university for the unauthorized use of its name. This might have occurred through oversight or by mistake, but the recent publication in the daily press of a letter from an eminent German pathologist, now a resident of this city, leads to the suspicion that more than mistakes have been made in the exploitation of this institution. On its announcement appeared the name of the scientist just referred to, as a member of the faculty and professor of the branch of medicine which he has so honored. In his letter, this gentleman states his name is used without authority, and he threatens the management with legal proceedings un-

less the proper change and apology is made. At least one other gentleman, whose name appears on the faculty roll, has stated that it there appeared without his knowledge or consent. It is unwise to allow mistakes of this kind to be made, and the college management would do well to see that such unfortunate errors are corrected, and that a revised prospectus is issued with a faculty list duly authorized and above reproach. —*Medical Standard*.

The Passion for Prescribing.—

Gonelle, a jester at the court of the Duke of Farrara, insisted that the trade which had the most followers was that of doctor. To prove his assertion, he left home one morning wearing his nightcap and with jaws wrapped up, pretending to suffer from a toothache. Every person he met had some advice to give. When the jester entered the presence of the prince, the latter declared that he knew something that would "take his pain right away." Gonelle instantly threw up his kerchief and remarked: "And you too, Monseigneur, are a doctor; I have only passed through one street in coming from my house, and have counted more than two hundred of them. I believe I could find ten thousand in the city."

Whether the story is true or false, it could find practical basis in this day. There is probably no one who has not permitted himself to give medical advice to an ailing person in passing. It is a common affair to remark that a person was "cured" by such and such a remedy—"Try it!"—and to jeer at the doctors who know nothing about the affair. —*Popular Science Monthly*.

Beer-brewing in the United States.—

Doctor Scheele, a chemical expert, says that ninety per cent. of the beer brewed in America will not come up to the test prescribed by the German Government, which is not a severe one, only insisting that *pure* beer shall be brewed, and fixing severe penalties for the production of any other kind. It is an open secret that American brewers do very much as they please, putting all sorts of illicit stuff in their concoctions. So far they have been able to ward off any troublesome litigation, but it is time that their product was subjected to a strict and uniform official supervision, as it is in Germany, France, Brazil, and most other beer-consuming countries. It is a question of the public health and well-being, though the brewers in general seem to regard it as one which ought to be considered only from the point of view of their own private interests. —*Exchange*.

Bacteriology.—

The students of bacteriology put us in mind of a group of juveniles at play. One sees something, or says he sees something. Immediately all the rest, unwilling to be behind him, cry out that they see it too.

If every doctor in the land owned a microscope and bacteriological outfit, the budding science would have met an early frost. Its flimsy foundation of assertion, its manifold fallacies and absurdities would have been soon demonstrated. But, unfortunately, men who think for themselves, see for themselves, act for themselves, are rare. Would-be scientists have had a monopoly of the subject, and, as usual, the exorbitant claims of said monopoly bid fair to prove its own cure.

The bacteriological knowledge of most physicians is strictly hearsay. What is such testimony worth as evidence?—*Medical Brief.*

Society and the Horse.—

Society owes to the horse a debt of gratitude a thousand times greater than it does to thousands of men who abuse him. He has ministered to progress; has made social intercourse possible when otherwise it would have been slow, occasional, or altogether impossible; has virtually extended the strength of man, augmented his speed, doubled his time, decreased his burdens, and, becoming his slave, has relieved him from drudgery and made him free. For love's sake, for the sake of social life, for eminent moral reasons, the horse needs to be bred, trained and cared for with scrupulous care. The teaching of men how to do it has been left too long to men who look upon the horse as an instrument of gambling gains or of mere physical pleasure. —BEECHER.

Macbeth up to Date.—

Thyroid of a black-faced sheep
In the cauldron boil and steep;
Brain of pig and spine of dog,
Testes of lascivious hog,
Pancreas of white-faced calf
Plunge in the mysterious bath;
Double, double toil and trouble,
Fire, burn, and cauldron, bubble!
Medulla of a rabid bitch
Lain a fortnight in a ditch,
Bacillus of an anthraxed rat,
Cocci grown in putrid blood
Will make the spell both strong and good.
Double, double toil and trouble,
Fire, burn, and cauldron, bubble!

—DOCTOR JEAFFRESON.

Precocious Mothers.—

In February last we noted the fact that a girl ten years and two months of age had been delivered of a healthy child. In the

Atlanta Medical and Surgical Journal of April, 1896, Doctor T. J. Mitchell, of Locust Grove, Ga., has an almost equally young mother—one who at the age of thirteen years was already the mother of three children! She first became a mother at the early age of eleven years, three months, and twenty-three days, and gave birth to twins at the age of thirteen years, one month, and fifteen days.—*American Journal of Surgery and Gynecology.*

What a Surgeon Ought to Be.—

One of the interesting characters of the fourteenth century was the sergeant surgeon of Edward III., in 1346, John of Arden. He gives a "Description of ye qualities which ought to be in ye surgeon that performeth any operation in chirurgery: First, that he be devout. Secondlie, charitable to ye poor. Thirdly, to use few words. Fourthly, to avoid drunkenness. Fifthly, to be chaste both in words and gesture, as well as to fear ye not. Sixthly, not to undertake an incurable disease."—*Indian Medical Record.*

Curious Effect of X Rays.—

M. J. Stern, during experiments at the Philadelphia Hospital, noted a reddening and finally a bronzing of the skin of the hands from constant exposure to the Roentgen radiations in the handling of the apparatus. The general appearance and course is that of slow sun-burning, and the physiological mechanism is probably similar.—*Philadelphia Polyclinic.*

"Bike" Doggerel.—

A girl will mount, and a girl will scorch,
And a girl will ride all day;
But she can't carry water to scrub the porch,
Because she ain't built that way.

A girl will climb every hill with her wheel,
That she meets in a livelong day;
But she can't bake a pie, or cook a meal,
Because she ain't built that way.

—J. D. ALBRIGHT.

Where is the Connection?

It may seem difficult to establish, but it remains a fact that during and ever since the Democratic convention the down-town druggists in Chicago have exhibited in their show windows suspensory bandages, and nothing but suspensory bandages.—*Western Druggist.*

Habitual Constipation.—

Shoenlaub recommends the concentration cascarrin as a substitute for cascara sagrada. He says it never gripes.

Book Reviews.

FOREST, LAKE, AND PRAIRIE. By John McDougall. Cloth; 12mo; pp. 267. William Briggs, Toronto; Curtis & Jennings, Cincinnati.

This is a volume of personal recollections of frontier life in western Canada during the twenty years from 1842 to 1862. We are thus given a view of the region around Georgian Bay and the "Soo" in early days, and of Manitoba and the Great Northwest in the palmy days of the rule of the Hudson's Bay Company. To review the book as it deserves would be practically to republish it. We may say, however, it is without a dull line, and gives an insight into the lives of pioneers, missionaries and Hudson's Bay Co.'s employes such as is rarely afforded. Among the localities especially described are Nottawasaga, Garden River, Penetanguishine, Orillia, Rama, in Ontario, and Old Fort Garry (Winnipeg), Norway House (on the Nelson), Fort Carleton and the Saskatchewan Valley in the Northwest.

A companion volume entitled "Saddle, Sled, and Snow-shoe," is now in press, and promises to be equally interesting.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F.R.S. Sheep; imperial 8vo; pp. 1239. Price, \$8.00. Lea Brothers & Co., Philadelphia.

For the first time in its long history this volume has been revised exclusively by American anatomists, and the publishers assure us there has been effected not only a general revision of the work as a whole, but also entire changes in certain departments in which investigation has been especially active during recent years. The sections devoted to the brain, teeth, and the abdominal viscera (exclusive of the genito-urinary tract) have been rewritten, and those on histology and development greatly enlarged. The splendid series of illustrations which have always distinguished this work have been enriched in this new edition by no less than one hundred and thirty-five additional engravings. In short, the edition is presented to the medical public with the confident expectation it will be found worthy in every respect to maintain the exalted position which Gray's Anatomy has for so many years enjoyed.

PRACTICAL DIAGNOSIS. By Hobart A. Hare, M.D., B.Sc. Cloth; 8vo; pp. 566. Price, \$4.75. Lea Brothers & Co., Philadelphia.

The author of this work is so well known that a review seems practically superfluous. He endeavors to deprive the art of diagnosis of most of its difficulties by treating exclusively from a clinical standpoint. Thus, symptoms are discussed first, and their application to the task of determining the character of the disease follows. In ordinary treatises the practitioner is forced to make a supposititious diagnosis, and having done this turn to his reference book and study the disease supposed to be present, in the hope of securing confirmation;

and of course a failure requires another "guess," with perhaps equally unfortunate results. By Doctor Hare's plan, however, it is intended that any one marked symptom will give an immediate clue to the diagnosis.

Especially valuable is the double index—one part devoted to diseases, the other to symptoms, organs, and terms.

RHEUMATOID ARTHRITIS. By Gilbert A. Bannatyne, M.D. (Glas.), M.R.C.P. (Ed.). Cloth; 8vo; pp. 173. Price, 7s. 6d. John Wright & Co., Bristol, England.

The preparation of a work on rheumatoid arthritis involves an immense amount of labor, not only on account of the mass of literature which has to be traced and classified, but also (and more especially) owing to the recent discovery by the author and Doctor Wohlmann of micro-organisms which they believe to be specific, and which in consequence imply a revision of pathology, morbid anatomy, and treatment.

Aside from the individual views of the author and the value of the text *per se*, the work is a necessity to every practitioner, inasmuch as it is a most complete bibliographical index of rheumatoid arthritis, and possessed of illustrations most definite in character, many being from skiagraphs. The volume cannot be too highly commended.

FOOD IN HEALTH AND DISEASE. By I. Burney Yeo, M.D., F.R.C.P. Cloth; 12mo; pp. 592. Price, \$2.50. Lea Brothers & Co., Philadelphia.

We are pleased to see a new (second) and enlarged edition of this work, which certainly has no equal in the English language. Professor Yeo is one of the foremost of therapeutists, and no one is better able to furnish specific guidance in the proper use of nourishment in the various diseases. He approaches the subject naturally and rationally, from the standpoint of the qualities and values of different foods in the condition of health. The volume is a most convenient compendium not alone to the physician, but to all who are interested in the subject of foods and diet. Moreover, it is written in a style which renders it freely available to all classes and conditions of people.

BULLETIN FROM THE LABORATORIES OF NATURAL HISTORY OF THE STATE UNIVERSITY OF IOWA. No. 3, Volume III. Paper; 8vo; pp. 122. Price, 50 cents. Published by the Regents, Iowa City.

This issue contains: "Saprophytic Fungi of Eastern Iowa," by T. H. Macbride; "On the Larvæ of Three Coleoptera" and "Supplement to the List of Coleoptera of Iowa City and Vicinity," by H. F. Wickham; "New Iowa Fungi," by J. B. Ellis and E. W. D. Holway; "Description of American Uredineæ," by J. C. Arthur and E. W. D. Holway; "Nicaraguan Orthoptera," by Lawrence Bruner; "Lichens of Iowa," by Bruce Fink; "A Study of North American Parasitic Exoasceæ," by Mrs. F. W. Patterson.

A MANUAL OF MATERIA MEDICA AND PHARMACOLOGY. By David M. R. Culbreth, Ph.G., M.D. Cloth; 8vo; pp. 818. Price, \$4.75. Lea Brothers & Co., Philadelphia

This is a thorough, authoritative and systematic exposition of materia medica and pharmacology, the different agents being grouped according to their natural relations, at the same time affording thorough information as to the source, classification, constituents, preparation, adulteration, properties, dosage, etc. The materia medica of the animal, vegetable and mineral kingdoms is thus exhaustively and practically described, including new and important additions which organic and synthetic chemistry has contributed within recent months. There are also useful tables, information on the use of the microscope, on poisons and antidotes, abbreviations, and a very full index.

BULLETIN FROM THE LABORATORIES OF NATURAL HISTORY OF THE STATE UNIVERSITY OF IOWA. Volume III, No. 4. Paper; 8vo; pp. 217. Price, 50 cents. Published by the Regents, Iowa City.

Contents of this issue are: "Notes on the Aquatic Phenogams of Iowa," by R. I. Cratty; "A List of Some Coleoptera from Northern New Mexico and Arizona," by H. F. Wickham; "County Parks" and "An Interesting Puff-ball," by T. H. Macbride; "Notes on the Crustaceous Flora of Western Iowa," by Paul Bartsch; "The Le Claire Limestone," by Samuel Calvin; "Nicaraguan Hymenomycetes," by J. B. Ellis and T. H. Macbride; "Notes on the Flora of Iowa," by B. Shimek.

AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS. By J. C. Wilson, M.D. Cloth; imperial 8vo; pp. 1326. Price, \$7.00. W. B. Saunders, Philadelphia.

This book is claimed to be "based upon modern teaching of pathology, beginning with intoxications, following with infections and diseases due to internal animal parasites, diseases of undetermined origin, and finally the disorders of the several bodily systems—the digestive, respiratory, circulatory, renal, nervous, and cutaneous." Separate articles appear upon general therapeutic measures, but matters of purely surgical interest have been omitted.

A MANUAL OF CLINICAL DIAGNOSIS. By Charles E. Simon, M.D. Cloth; 8vo; pp. 504. Price, \$3.50. Lea Brothers & Co., Philadelphia.

In this work the application of chemical and microscopical methods in diagnosis is authoritatively and clearly explained, both from the European and American standpoints. Thus the reader is given the practical indications that are to be obtained from the circulation, from the various secretions and excretions, from the transudates and exudates, from cystic contents, meningeal fluid, etc. The volume is abundantly illustrated with engravings and full-page plates in colors.

THE ROYAL NATURAL HISTORY. By Richard Lydekker, B.A., F.R.S., F.Z.S. Paper; 8vo. Price, 50 cents; \$11.00 per year. Frederick Warne & Co., New York.

Number 32 (Volume VI, No. 2), August 15th, 1896, continues the Lepidoptera, with the moth; then follow the Coleoptera—the beetles; Neuroptera—caddice-flies, etc.; Orthoptera—dragon-flies, May flies, stick and leaf insects, crickets, etc. The colored plates of this issue represent butterflies and mimicry in insects.

Number 33, September 1st, treats of Rhynchoa—or bugs both of land and water; of Thysanoptera, or thrips, of centipedes, millipedes, scorpions, spiders, sea spiders, mites, ticks, crustaceans, trilobites, etc.

Number 34 (September 15th) begins the last section of this monumental work, treating of the Mollusca and Protozoa.

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

Contents for October: "George O'Green and Robin Hood," by Caroline Brown; "A Vegetable Ogre," by E. B. Rogers; "The Fire on the Water," by C. G. D. Roberts; "The Horses of the Castle," by Tudor Jenks; "Historical Military Powder-horns," by J. L. Stickler, U. S. N.; "The True Story of Marco Polo" (x-xii), by Noah Brooks; "The Swordmaker's Son" (concluded), by W. O. Stoddard; "The Kind-hearted Bear," by Isabel F. Hapgood; "More Gobolinks," by Ruth McEnery Stuart and Albert Bigelow Paine; "The City of Stories" (ii), by F. M. Bicknell; "Sindbad, Smith & Co" (concluded), by Albert Stearns; "The Donkey of Carisbrooke Well," by Edith V. B. Matthews; "The Very Good Friends" (iv), by C. C. Jencks; the usual verse, charades, etc.

THE LIVING AGE. Price, \$6.00 per year. The Living Age Co., Boston.

Recent numbers contain, with much more equally good and interesting reading, "Mrs. Meynell's Two Books of Essays," by George Meredith; "Recent Science," by Prince Kropotkin; "An Excursion in the Atlas Mountains," by Walter B. Harris; "Sir Henry Parkes," by A. Patchett Martin; "Some Curious Duels," by J. Cuthbert Hadden; "Thomas Henry Huxley," by Wilfrid Ward; "On an Old American Turnpike," by A. G. Bradley; "Through Touraine on Wheels," by Sir Herbert Maxwell; "Hjaltland," by Colonel T. P. White; "Chariloas Trikoupes," by James D. Bouchier; "La Salsiaz in 1895," by A. Taylor Innes; and "Gustavus Adolphus," by Spencer Wilkinson. At least one short story, and selections of recent poetry, appear in each weekly issue.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

Table of contents for October 3d: "Money and Architecture in America;" "Present Conditions of the New York Building Department;" "Heavy Framing in Wood and Iron"—vii; "Roman Theatres;" "In Streets and Papers;" "Legal Notes;" "Tectorium as a Substitute for Stained Glass;" "The Drainage of Buildings;" "Electrolysis and Water Pipes;" "To Preserve Wood;" "Progress of the Restoration of Canterbury Cathedral;" "Making Workmen Comfortable;" "Civil Service Examination;" "Floor Test for Fire and Water Resistance;" "Sky-scrapers from a Fireman's Standpoint;" "Manual Training Teachers Needed."

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston.

The October issue opens with a notable article by Charles W. Eliot entitled "Five American Contributions to Civilization." "Marm Lisa" (v-x) is by Kate Douglas Wiggin; "Cakes and Ale," by Agnes Repplier; "The Imperiled Dignity of Science and the Law," by John Trowbridge; "Tis Sixty Years Since at Harvard," by Edward Everett Hale; "Girls in a Factory Valley," by Lillie B. C. Wyman; "The Old Things" (concluded), by Henry James; "The Fate of the Coliseum," by Rodolfo Lanciani; "Abandoned—A Tale of the Plains," by B. Lindsay; and "Sunday in New Netherland and Old New York," by Alice M. Earle. There are the usual departments.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

Contents for October: "About French Children," by Th. Bentzon; "A Little Fool," by Agnes B. Poor; "An Open-eyed Conspiracy" (conclusion), by W. D. Howells; "A Study of Mental Epidemics," by Boris Sidis; "Prisoners of Conscience" (II), by A. E. Barr; "A Presidential Candidate of 1852" (John P. Hale), by G. W. Julian; "Sonny 'Keeping Company,'" by Ruth McEnery Stuart; "What Became of Dennis Martin?" by Jacob A. Riis; "In the Heart of Africa," by E. J. Glave; "Sir George Tresady" (conclusion), by Mrs. Humphry Ward; "Let Fall the Ruin Propped by Europe's Hands," by Richard Watson Gilder.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The October issue opens with an article by E. W. Blashfield entitled "Siena;" F. V. Greene writes of "The Government of the Greater New York;" W. C. Brownell of "The Sculpture of Olin Warner;" Kirk Munroe of "From Light to Light;" A. W. Colton of "Twenty Years Hence;" E. L. Godkin of "The Expenditure of Rich Men;" Mary G. Humphreys of "The New York Working Girl." There are installments of "Sentimental Tommy" (xxxiii-xxxv) by J. M. Barrie, and "On the Trail of Don Quixote" (III) by A. F. Jaccaci; also the usual departments and poetry.

THE ECLECTIC MAGAZINE. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

Notable papers are: "The Battle of the Standards in America," by W. L. Alden and William Dillon; "The Making of a President," by Francis H. Hardy; "Bicêtre," by Tighe Hopkins; "Autonomy of Labor," by H. W. Wolf; "Through Touraine on Wheels," by Sir Herbert Maxwell; "The Cuban Question," by James Fitzpatrick Kelly; "Recent Science," by Prince Kropotkin; "The First Nest of a Rookery," by Phil. Robinson; "The English Ranchman," by J. R. E. S.; "The Old Life of the Inns," by Sheila E. Braime; "Matthew Prior," by Edward Mauson.

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

There are many articles of interest in the October number, among them being "Draperies for the Autumn," by Mrs. Oliver Bell Bunce; "Decorative

Mottoes;" "Nature's Decorations;" "The Dining-room, and Illustration of a Dining-room," by B. J. Nat Hutchings; "Augustus Thomas's Home," by Genie H. Rosenfeld; "Decorative Notes," "The Old Hall Clock," by A. A. Kelly; "Illustration of Ladies' Parlor, Marie Antoinette Hotel;" "Pyrography for Amateurs," etc.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Co., Irvington-on-the-Hudson.

The October number comes to us far more replete than usual with good things. Thomas L. James writes of "A Summer Tour in the Scottish Highlands;" Captain D. D. Gaillard of "The Perils and Wonders of a True Desert;" General Edward Foster of "Personal Recollections of the Tai-Ping Rebellion." A most delightful and amusing paper is "The True History of Our Cooks," by F. C. Baylor; and "Hofman's Object Lesson," by John J. a'Becket, is almost weird enough for a mediæval ghost story.

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The October issue contains a "Biographical and Personal Study of Ian Maclaren," by D. M. Ross; also an account of the Historic Lincoln and Douglas debates. Will H. Low gives personal reminiscences of "Reception Day at the French Salon;" Chester Holcombe contributes a paper on "Li Hung Chang;" "Phroso," by Anthony Hope, is concluded; Elizabeth Stuart Phelps continues her experiences as an author. There are also several short stories, and a ballad, "Cholera Camp," by Rudyard Kipling.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the October issue George C. Lay contributes the first chapter of a short history of the life of "Benjamin Franklin;" "The Marston Moor Mystery" is by Kenneth Lee; "The Story of One 'New Woman,'" by Louise B. Sims; "The Present Campaign in Cartoon," by Marmaduke Humphrey; "Great Singers of This Century" (xii), by Albert L. Parkes; "Music in America" (xvii), by Rupert Hughes; "The Mask of the Lost Soul," by Mary T. Earle; "The Dramatic Press-Agent," by R. H. Dutton.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

In the October issue, papers of special note are: "Fast Atlantic Steamship Service," by Sir Charles Tupper, Bart.; "The Legend of Holland Cove," by F. Gerald; "The Canadian Girl," by Reginald Gourlay; "Through the Sub-arctics of Canada," by J. W. Tyrrell; "A Farmer's Daughter," by Jean Blewett; "A Reply" (to Principal Grant), by Goldwin Smith; "Kate Carnegie," by Ian Maclaren; "Her Majesty's Sixty Years' Sovereignty;" "Civil Service Reform," by A. H. U. Colquhoun, B.A.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

Under the caption of "Strategic Chiefs of the Campaign," Murat Halstead writes of Marcus A.

Hanna; Willis J. Abbot of J. K. Jones; and Carl Snyder of Marion Butler. Other notable papers are: "The Rise of National Democracy," by Elbridge G. Dunnell; "Princeton in Her Sesquicentennial Year," by W. M. Durrell; "Jules Simon," by Pierre de Coubertin. There are the usual departments devoted to Progress of the World, History and Caricature, and Leading Articles of the Month.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Publishing Co., New York.

Contents for October: "Safe Pathway of Experience," by Thomas B. Reed; "Our Electoral System," by S. M. Merrill; "The Best Currency," by A. W. Tourgée; "Prospects of Education in England," by Sir John E. Gorst; "Educational Uses of Hypnotism," by R. O. Mason; "If Silver Wins" is discussed by Louis Windmuller and W. Clark; "Our Neglected Shipping" is by Alex. R. Smith; "France's Task in Madagascar," by F. Taylor, F.R.G.S.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

In the October issue T. C. Mendenhall writes of "The Metric System;" "Nevada Silver" is by Chas. H. Shinn; "A Measure of Mental Capacity," by Emil Kraepelin; "The Significance of Leaves," by F. Mathews; "The Educative Value of Children's Questioning," by H. L. Clapp; "The Self and its Derangements," by W. Newbold; "Exaggeration as an Aesthetic Factor," by M. F. Regnault; "Enrico Ferri on Homicide," by H. Zimmern.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

In the October issue is a deeply interesting study of "The Life and Works of Cardinal Taschereau," the Canadian prelate; "The Basis of Our Literature" is by Reverend P. Dillon; "Ireland in the Forties," by James McNamee; "In the Field of Eloquence," by Reverend Joseph V. O'Connor; "Where Mary Stuart Died," by M. B. Thrasher; "The Early French Missions in Nova Scotia," by I. A. Owen. There are the usual editorial and other departments.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Company, Boston.

The principal papers in the October issue are "Cooking and Housework in Schools," by Maria Parloa; "Form and Color in the Household," by Miss Minns; "Chemistry of Cooking," by Ellen H. Richards and Maria Elliott; "Food and Health," by Etta M. Hudders; "Provision of Food for a Typical American Family," by Anna Burrows; "The Potato Harvest," by Barbara Allen.

OUTING. Price, 25 cents; \$3.00 per year. Outing Co., New York.

The October issue is a most readable number. There is a complete story of the Old South by Sara Beaumont Kennedy; "Football" is by Walter Camp; "Trotting Road Teams and Their Drivers," by E. B. Abercrombie; "A Day on the Uplands,"

by E. W. Sandys; "Racing Schooners," by R. B. Burchard; "Bear Hunting in British Columbia," by W. E. Coffin; "American and English Boats and Oars," by Chase Mellen.

THE PROFESSIONAL PHOTOGRAPHER. Price, 10 cents; \$1.00 per year. The Nesbitt Publishing Co., Limited, Buffalo, N. Y.

This journal appears upon our table with delightful reproductions of the photographic art. In the table of contents we observe an account of A. Moreno, the artist of New York's Four Hundred; and a paper on "The Orthochromatic Value of Plates." There are a number of addresses, reports of societies, and information of general value to photographic artists.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 5 cents; 60 cents per year. Monthly Illustrator Publishing Co., New York City.

Contents for October: "A Painter and Teacher," by H. L. Jillson; "The Braes o' Mar," by Peter MacQueen, M.A.; "The Avenging Sword," by P. V. Mighels; "Whist and its Masters" (III), by R. F. Foster; "Gormley's Little Joke," by J. K. Reeve; "Russian Costumes," by C. H. A. Bjerregaard; "The Great State of Johnsing," by Mary T. Earle.

THE MONIST. Price, 50 cents; \$2.00 per year. The Open Court Publishing Co., Chicago.

The current—October—issue of this quarterly contains, besides departments, the following papers: "Animal Automatism of Consciousness," by C. Lloyd Morgan; "The Regenerated Logic," by Charles S. Peirce; "From Berkeley to Hegel," by Edward D. Fawcett; "Panlogism," by Paul Carus (editor); "Unconscious Pangeometry," by George B. Halstead.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Company, New York

The October number contains "A Test for Truth," by Paul Tyner; "Development through Reincarnation," by W. T. Tuthill; "Karma in Modern Theosophy," by C. Johnston; "Occultism among the Tahitians," by Alice Le Plongeon; "Individuality in Masses and Classes," by Burnetta Brown. There are the usual departments.

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines, Iowa.

Of especial moment in the October issue is a paper on "Grant's Life in the West, and His Mississippi Valley Campaign," by Colonel John W. Emerson. Other notable papers are: "Maori Land," by Alice Monk; "Christian Communism of the Mississippi Valley," by B. L. Wick. There are the usual editorial and fiction.

PHRENOLOGICAL JOURNAL. Price, 10 cents; \$1.00 per year. The Fowler & Wells Co., New York.

The October number contains "Death of Professor L. N. Fowler," by Nelson Sizer; "Phrenology and Psychology," by John M. Shull; "Phrenotypes and Side Views," by H. S. Drayton; "Reflections on the 'New Woman,'" by Blanche Lane. There are the usual departments.

Therapeutic Brevities.

Alcohol in Malignant Disease.—I have long taken a deep interest in the treatment of carcinoma by the various methods from time to time advocated. Twenty-two years ago I began experimenting with alcohol, arguing that as it is an effective antiseptic dressing for septic wounds, it might prove of value in the treatment of cancer.

In August, 1874, I commenced my first treatment, in a case of carcinoma of the breast, in which I employed hypodermatic injections of whiskey for three months, giving two or three per week. The growth of the tumor was checked and its character changed so that it resembled a fibrous growth and gave the patient no trouble for two years and a half. At this time the growth was cauterized by an Eastern physician, following which treatment it rapidly extended around the chest, finally extruding between the ribs, and involving the lungs. The patient died in 1879.

Since that time I have become familiarized by experience with this treatment, and have for a considerable time used absolute alcohol, with such gratifying results that I do not now dread cancer as I once did. Until five years ago, I employed this treatment only in extreme inoperable cases, but since that time I have treated all the cases of malignant disease by the hypodermatic injection of absolute alcohol.

I ordinarily inject from five minims to two drachms of alcohol at a sitting, according to the locality, size and nature of the growth. The needle should be passed deeply into or through the growth, and the fluid injected during the retraction of the needle in order to avoid abscess-formation. The injection is painful, but this pain can be controlled by a few whiffs of chloroform. Within twenty minutes, as a rule, slight alcoholization of the patient takes place, but rapidly passes away. Local inflammation for about twenty-four hours follows each injection. The effects of the injection are seldom noticeable until two or three injections have been made, when the tumor begins to decrease in size. The shrinkage in the size of the tumor continues in the majority of cases until it entirely disappears. The injections are repeated according to the needs in each particular case or class of cases.

In cases where the disease has so far progressed that an open ulcerating surface is present, it is my custom to employ both hypodermatically and as a constant moist dressing over the surface of the tumor, alcohol to which has been added from fifteen to

twenty-five per cent. of tannic acid. The mass will ordinarily slough off after two or three applications—in from three to ten days, according to the size and character of the tumor.

In addition to the local treatment, when indicated I give full doses of Donovan's solution until the physiological effect is produced, whereupon it is gradually withdrawn.

During the time I have been treating malignant disease by injections of alcohol, I have observed its effects in carcinoma of the breast, of the corpus and cervix uteri, of the vagina and vulva, of the tongue, and of the glans penis; in sarcomas of the shoulder, breast, arm, and leg; also in lupus.—HOWARD, in *Medical Standard*.

Constipation of Infants.—The nursling should have two to four stools a day during the first two months, and one or two after the first year; whenever they are less frequent, constipation is present. Transient or habitual constipation may be due to retained meconium, stricture of intestine, atresia of anus; symptomatic constipation to febrile states, cerebral disorders; alimentary constipation to simple or sterilized cow's milk, excess of casein or mineral waters, deficient sugar or fat; congenital constipation to intestinal occlusion, excess of length or folds of the large bowel. Consequences—rectal prolapse, umbilical hernia, invagination of the bowel, convulsions, prurigo, urticaria, eczema, anal fissure, mucous, serous or ulcerative colitis.

In the alimentary constipation of nurslings give a little sugar-water, or cow's milk four parts to sugar-water one hundred; rectal lavage by urethral catheter, two tablespoonfuls of glycerin to one liter of water, or two tablespoonfuls of oil with the yolk of an egg to four drachms of water; massage, electricity; suppositories for fissure; no laxatives before three months; no purgatives during the first year.—*The Practitioner* (London).

* *

There are many causes which acting together produce defective action of the bowels in infants. The sigmoid flexure is proportionately of much greater length than in the adult; the nervous forces also are not yet as well regulated, so the child does not feel the need of an evacuation. The infant lies most of the time in a horizontal position; very frequently it is drugged, on account of restlessness, with all kinds of medicines (frequently opiates) which add to the trouble. Furthermore, the constipation may be due to other diseases—rachitis, etc. The

most important cause, however, is the feeding of the infant with food deficient in fat. The fæces consist of fat and casein; it is therefore of importance that the food should contain an excess of fat, so that thereby the fæces may obtain their plastic condition. From a deficiency in fatty matter, the contents of the lower bowel will become dry and hard, and hence difficult of expulsion. The milk of woman contains about four per cent. of fat; cow's milk one-eighth less. If the latter is mixed with an equal quantity of water, the percentage of fat falls to 1.75 per cent. Other preparations in place of mother's milk, the different children's foods, add the difficult digestion of starch to the absence of fatty matter, and therefore they are even worse as articles of diet than cow's milk, and readily give rise to diarrhœas following their constipating effects. — DURANTE, in *Archiv für Kinderheilkunde*.

Berberis Aquifolium.—This root has acquired quite a reputation as an anti-syphilitic, and in the secondary and tertiary stages of syphilis it is quite active in eliminating the virus. In the tertiary stage it tones up the enfeebled powers of organic life. It improves digestion and assimilation, and aids other remedies—e.g., cascara sagrada—in relieving constipation. Combined with corydalis, stiltingia, cascara amarga, and iodide of potassium, it proves most effective in the secondary and tertiary stages of syphilis. It is also very appropriate in cutaneous affections dependent on syphilis. In certain skin affections not connected with syphilis, such as rupia, eczema, herpes zoster, scurvy, acne, and pityriasis, berberis may be combined with dulcamara, arctium lappa, or alnus rubra, with good effect; in scrofula, with scrofularia. It possesses extreme power over morbid or poisonous matter in the blood, hence is a most powerful catalytic. In catarrh or ozæna it is recommended combined with iodide of potassium, or alternated with iodide of arsenic. In cases where the blood is in a disordered state, causing ulcers, and suppuration where the skin is cut or broken, *Berberis aquifolium* will be found one of the best remedies.

It not only improves digestion and assimilation, but also breaks up and conveys out of the blood impure material, and in this way becomes an antidote to blood impurities, syphilis included. And if it can thus eliminate from the blood the poison of syphilis, it may be presumed to be active enough to remove other poisons. It relieves struma, and from this fact it has been claimed to be a rem-

edy for cancer, but there does not appear to be any satisfactory supporting evidence. It has a tendency to act on the liver, like its congener *Berberis vulgaris*, and so may be combined with *Chionanthus virginica* for the relief of jaundice. As a tonic, it may be used with good effect in that most depraved condition called phthisis pulmonalis, combined with phosphite of lime and creosote. — *Georgia Eclectic*.

Passiflora.—I order the root dug when the plant is in full bloom and the fruit forming. The root, vine, leaves, flowers, etc., are dried in the shade so as to free them of water and permit convenient grinding in a mill into coarse particles. This ground matter is packed into a stone jar holding three or four gallons; after the jar is full of the root well packed in, alcohol is poured in to fill the jar completely; as the root absorbs the alcohol, more is added, day by day. The maceration is allowed to continue from three to six or eight weeks, according to the temperature—the shorter time for summer months. Then the tincture is poured off, and the magma put into a powerful press and all remaining fluid pressed out; if the pressing is thorough, the magma is as dry almost as dust; all the fluid is then mixed and filtered. The tincture thus obtained is a gem of the purest water.—Some prefer to make the tincture from root dug after the fruit has ripened, but I do not think that is as strong and active.

Some people cannot stand more than twenty drops at a dose; others can stand a teaspoonful with the best results. I know a gentleman who is subject regularly, every month, to cephalalgia, and when an attack threatens he begins with a teaspoonful of the passiflora tincture; if commenced early, the attack is warded off. Several ladies who are subject to the same trouble resort to the remedy with equal success. I have recently learned of chorea in a girl twelve years of age, cured by taking one-half teaspoonful of passiflora early in the morning, an hour before dinner, and again the last thing before retiring at night. Every other remedy known to her physician had failed in her case. — JOSEPH ADOLPHUS, in *American Medical Journal*.

Eruption from Potassium Iodide.—A patient was recently exhibited before the French Society of Dermatology and Syphilography who, an old syphilitic, after having taken the iodide of potash, had upon his hands, forearms and face an eruption that, beginning as erythematous patches, took the form of bullæ filled

with serum, and later developed into phlyctenæ surrounded by reddish zones, finally becoming vegetating and papillomatous on the hands, where they opened. He had taken the drug several times before without any untoward results. His kidneys were normal. Doctor Hallopeau says that at one time iodine will affect a patient, and at another time it will not; he has seen a patient become blind from iodo-potassic bullæ developing on the corneæ. These tumors of the skin, after poisoning by the iodide of potash, may simulate those of mycosis.—*La Semaine Médicale*.

Phthisis.—Creosote is a remedy productive of much good, or a substance utterly worthless and even harmful. To-day it is one, and to-morrow it is the other; but, as a rule, in either instance it is the physician or pharmacist and not the remedy that is at fault. Pure creosote, properly and systematically administered, is without doubt one of the most reliable and standard remedies in the entire Pharmacopœia, and failure in its use is due to non-employment of a reliable product, or neglect to prescribe a proper method of administration. A pure beechwood creosote administered in a proper way, as a rule, gives most successful results.—INGRAHAM, in *Medical News*.

Syphilitic Lesions.—Black applies a ten-per-cent. solution of chromic acid to the lesion to be treated, and immediately afterwards the solid stick of silver nitrate. Chromate of silver and free nitric acid are formed; the latter acts vigorously on the tissues, but with less pain than when used alone. It is especially useful in indurated syphilides of the mouth and dry papules of the mucous membrane, but it is also serviceable in chancre, nævus, lupus erythematosus, and condylomata. The crust formed by the caustic falls off in a few days.—*Indian Medical Gazette*.

Erodium Cicutarium.—This plant belongs to the Geraniaceæ. Komorovitch finds it acts upon uterine muscular substance even in cases resistant to ergot. He employs it in hæmorrhages from metritis, fibroma, and after abortion. In one case of cervical polypus, after two days' use of the infusion the polyp was spontaneously expelled and the os closed. Notwithstanding that its use was sometimes prolonged, it caused no ill-effects. The dose is a tablespoonful of an infusion of one part to twelve of water, every two hours.—*La Médecine Moderne*.

Eggs in Therapeutics.—A mustard plaster made with the white of an egg will not leave a blister. A raw egg taken immediately will carry down a fish-bone that cannot be gotten up from the throat. The white skin that lines the shell is a useful application for a boil. The white, beaten with loaf sugar and lemon juice, relieves hoarseness—a teaspoonful taken once every hour. An egg added to the morning cup of coffee makes a good tonic. A raw unbroken yolk in a glass of wine is good for convalescents.—*Medical Record*.

Spinal Irritation.—Jamaica dogwood is a fairly good remedy in spinal irritation. The dose must be progressively increased until it produces the required effect on the disease; begin with ten drops every three hours. A medical acquaintance went as high as eighty-five drops every four hours, and excellent results followed. I have had very good results from passiflora, a teaspoonful every one to three hours. Both are excellent hypnotics, and produce sleep in cases of fever and delirium tremens.—I. J. M. Goss.

Asafœtida.—In the multiplicity of diffusible stimulants this excellent drug is apt to be overlooked. The tincture, combined with milk of magnesia, is the best remedy for the distressing colic due to intestinal acidity and constipation; its passage through the alimentary canal is of diagnostic value in suspected obstruction or intussusception. In catarrhal pneumonia or capillary bronchitis it is exceedingly valuable, given in alkaline or soapy enemata, as a diffusible stimulant.—*Pædiatrics*.

Oleum Juniperis Oxycedrus.—Oil of cade is a most valuable though old-fashioned remedy, once extensively employed for the relief of eczema, lepra, and kindred skin disorders, and that too with far better results than more recent drugs; it has effectively cured many cases of alopecia. The difficulty is to get the true oil—usually a product obtained from the *Juniperis communis* is substituted. A good rule to observe is to purchase only in original packages imported direct from Aix-la-Chapelle.

Varicose Ulcers.—Small varicose ulcers of the feet may be treated advantageously with tincture of aloes. They should be cleansed and disinfected, then smeared with the tincture, which, in the course of half an hour,

dries into a thin layer, when a dressing is applied consisting of a piece of gutta-percha tissue, some wadding, and a bandage. At first the tincture causes some pain. The dressing is to be changed in four days.—*Journal des Maladies Cutanées et Syphilitiques.*

Onions for the Complexion.—Onions are not to be despised as a nerve tonic. They tone up the worn-out system, and if eaten freely will show good results in cases of nervous prostration. If a sprig of parsley be dipped in vinegar and eaten after an onion, no unpleasant odor from the breath can be detected. And in addition to this valuable and important bit of information, it may be said that onions eaten freely will also beautify the complexion.—*Journal of Materia Medica.*

Solanum Paniculatum.—The root of this plant is used by the physicians of Brazil, where it grows, as a purgative and deobstruent in disease of the liver and of the spleen, and has lately been a good deal employed as a tonic, alterative, and drastic, particularly in catarrh of the bladder. Michaelis thinks it is undoubtedly stomachic and useful in biliary colic and in chronic dyspepsia; he gives sixteen drops of a fluid extract three times a day.—*Medicinische-Chirurgisches Central-Blatt.*

Achillea Millefolium.—Mennella recommends common yarrow (*Achillea millefolium*) as efficacious in calculus and nephritic colic, not alone for its remedial but also for its preventive virtues. It increases diuresis, and is beneficial in chronic gastric catarrh; has a decided action upon the heart, increasing arterial pressure and strengthening the contractions without augmenting their number.—*Giornale Internazionale delle Scienze Mediche.*

Toothache Drops.—Equal parts of carbolic acid crystallized, camphor, chloral hydrate, menthol, and glycerin. Pulverize separately the camphor and chloral, mix, and when liquefied add the menthol, previously triturated, and lastly the carbolic acid and glycerin liquefied together by heat.

In packing the tooth cavity with this, none of the fluid should be allowed to ooze over the gums.—*Western Druggist.*

Functional Paralysis of Bladder.—When partially paralyzed, from parturition or any other cause, this viscus can always be made to empty itself perfectly by throwing a large

amount of very warm water into the bowels, thereby doing away with the necessity of using the catheter—a most important consideration, particularly when the patient lives at a distance from the medical attendant.—*The Scalpel.*

A Preventive of Insects' Bites.—

- B Acetic ether, 5 parts.
Eucalyptol, 10 parts.
Cologne water, 10 parts.
Tincture of pyrethrum, 50 parts.

Dilute with four or five times its bulk of water, and apply as a lotion.

—*Gazette Hebdomadaire de Médecine et de Chirurgie.*

Acute Bronchitis.—When accompanied by soreness and constriction across the chest, a fifty-per-cent. emulsion of linseed oil, with oil of wintergreen or cinnamon to disguise the taste, will be found a most excellent remedy. The bronchial secretion becomes quickly established, and symptoms rapidly disappear. Half an ounce every four hours is an appropriate dose for an adult.—Tussy.

Lobelia.—Formerly this was considered the most important remedy for the relief of spasmodic asthma; it also found extensive employment in the treatment of acute and sub-acute bronchial affections. Though perhaps overshadowed by some of the more recent therapeutic luminaries, it is none the less valuable in the treatment of the above-mentioned conditions.—*Summary.*

Dynamite Headache.—Those who use dynamite for blasting rocks, etc., frequently suffer from severe headache, one inhalation of smoke being sufficient to produce it. The bromides are useful in such cases, as active congestion of the brain is the immediate cause of the trouble.

Eczema.—

- B Salicylic acid, 20 grains.
Cocaine, 5 grains.
Zinc oleate, 120 grains.
Powdered starch, to make 2 ounces.

Use as a powder.

—HOLLOPETER.

Painful Urination.—If caused by excess of uric acid, five grains each of benzoic acid and borate of soda in an ounce of water, every two hours, will give relief with the third dose.

Medical Progress.

GYNÆCOLOGICAL COMPLICATIONS OF GONORRŒA.—The greater prevalence of disease of this kind in hospital than in private practice is, I think, unquestionable, and is explicable by the unclean personal habits and neglect of prophylactic treatment too generally observable in the former class of patients. In some of the instances of the kind observed in my hospital, the disease was distinctly and immediately traceable to the recrudescence, under the stimulus of sexual intercourse, of an infection contracted prior to marriage by the patient's husband, and suffered to run on into an ignored chronic, slight gleet discharge containing those specific and still pathogenically active micro-organisms by which gonorrhœa is communicable. *More usually, however, the infection so conveyed is not recognized until its remote consequences are brought under gynæcological observation, earlier non-detection in these cases being due, first, to the common occurrence of non-specific hæmorrhagic discharges from the vulvo-vaginal mucous surfaces, as well as to their comparatively lax structure, owing to which it is that, save where the infective virus is exceptionally intense and is chiefly localized in the more sentient tissues of the vestibule and meatus urinarius, women thus affected seldom manifest those evidences of local inflammatory action—scalding in micturition, pain in coitus, glandular complications, febrile disturbances, etc.—which generally attend acute gonorrhœa in the male. The differentiation of gonorrhœa from non-specific inflammatory or catarrhal exudations of the female genital mucosa is, as I have elsewhere pointed out, oftentimes a matter of no little difficulty and importance. In both cases the local condition may give rise to discharges from the mucous membrane of the urethra and bladder, as well as from that of the vulvo-vaginal walls, which can only be distinguished with absolute certainty by the recognition of the gonococci of Neisser in the cases that are gonorrhœal. Frequently, however, this test is not practically available, and, further, it is not always reliable, as that gonococcus is by no means invariably accurately distinguishable—at least by immediate microscopic examination or without a process of cultivation—from some other micro-organisms. The time requisite for the culture test is quite sufficient to preclude its utility as any help in such cases to the practitioner requiring immediate guidance as to the necessity for the use of those germicidal agents on which alone he can rely for the averting

of the remote gynæcological consequences of gonorrhœal infection. Under such circumstances, therefore, our judgment should be grounded on the history, the symptoms, and even to some extent on the probabilities of the case, rather than rest, as some suggest it may do, exclusively on bacteriological evidence, which, however valuable in many instances, in a still larger number must prove fallacious as a means of diagnosis and useless as an indication in treatment. Moreover, for the latter purpose, at least, a sufficient approximation to accuracy may generally be arrived at without any microscopic examination. Thus, for instance, if a vulvo-vaginal exudation be distinctly muco-purulent in character, attended by well marked localized inflammatory action, hyperæmic tumefaction, and tenderness in the vicinity of the meatus urinarius, with a peculiarly viscid discharge therefrom, and dysuria, there can be little question of the expediency of treating the case as one arising from gonorrhœal infection. At the same time we would not be justified on such evidence in formulating any *ex-cathedra* diagnostic pronouncement. For, as I need scarcely reiterate, in cases of this kind, in which, as sometimes happens, our patients' domestic happiness as well as physical health may be involved, our opinions should not only rest on the largest data available and be carefully weighed, but also, above all, they should always be expressed with the utmost possible caution.

The consequences of unchecked extension of gonorrhœal infection from the vulva to the adjacent parts can here be only very briefly glanced at. In the first place, as the disease progresses, the calibre of the genital passage soon becomes sensibly diminished by the congestive hypertrophy of its specifically irritated lining membrane, and by the accompanying hyperæmic condition of the submucous tissues. The vaginal surface may now be found bathed in a more or less profuse mucoid or muco-purulent discharge containing gonococci, by which the disease is ere long carried from the roof of the vaginal vault to the contiguous mucosa of the vaginal portion of the cervix, and thence to the endometrium. The results of this become evident in the causation of many cases of dysmenorrhœa and sterility, which in some instances are obviously due to the spread of the gonorrhœal inflammatory action from the muciparous follicles, or glandulæ Nabothi, to the underlying structures of the cervix, and the consequent occlusion or impaired patency of the cervical duct by plastic exudations. Of still greater importance in this connection are the immediate pathological effects of the spe-

cific contamination of the cervical mucoid secretions occasioned by gonorrhœa. Under normal circumstances the crystalline mucus acts as the natural lubricant of the canal, and as a protection in the intervals of the catamenia against the admission of pathogenic germs to the uterine cavity, while at the same time serving as a suitable medium for the transmission of spermatozoa, and also as a seal to the uterine orifice during pregnancy. When, however, that secretion becomes distinctly abnormal, or infected by gonococci, not only are these functions necessarily impaired, but the pathological discharge becomes a direct source of irritation or erosion of the cervix, as well as of dysmenorrhœa, and, above all, of sterility. The latter result is apparently directly consequent in such cases on the destruction of the spermatozoa by the infective micro-organisms contained in the cervical mucus. This view has been sufficiently confirmed by my experience of many instances in which the cure of sterility, as well as of its immediate gonorrhœal cause, has been effected by thorough curettage of the cervical canal followed by the local application of germicidal agents and the use of salol bougies.

If the infectious disease be not thus arrested before it has passed the cervical zone, its results, as I have elsewhere shown, are evinced in the causation of a large proportion of the cases of chronic endometritis that come under our notice. Of still graver pathological importance is the further extension of gonorrhœa beyond the endometrium, and the consequent induction of those tubal, ovarian, or other intra-pelvic lesions to which a brief reference must here be made.

The diagnosis of gonorrhœal from other forms of chronic salpingitis, as well as that of the consequent tubal collections—*i.e.*, pyo- or hydro-salpinx—must rest as largely on the history and general symptoms of each case as on the bacteriological evidence which in some instances may be afforded by the detection of gonococci in the accompanying cervical or vaginal discharges. Of the earlier symptoms of gonorrhœal, as well as of non-specific, salpingitis, probably the most constant are the persistent recurrence of otherwise inexplicable attacks of menorrhagia and metrorrhagia, associated with dysmenorrhœa in the intervals, between which attacks a deep-seated acute or lancinating intra-pelvic pain, shooting out into the sacral and inguinal regions, or extending down the thighs, is generally complained of. As the disease goes on, evidences of pyrexial disturbance, sudden alternations of temperature, a spiky clinical chart, and pyogenic rigors, become observable,

and are often attended with intra-menstrual hæmorrhagic or watery mucoid discharges from the uterus, while a little later local tumefaction and tenderness (discoverable by conjoint recto-abdominal exploration) in the course of the oviduct may disclose the existence of pent-up purulent or serous collections in the infected tube. The frequency of the extension of gonorrhœal infection from the oviducts to the ovaries, although disputed by some authorities, appears to me to be unquestionable. At any rate, whatever may be the case elsewhere, in my wards acute inflammation of the ovaries has been brought under notice as a consequence of that infection almost as commonly as from puerperal and other septicæmic causes, being, in fact, as Sir Spencer Wells observed, "probably of more frequent occurrence than acute orchitis is in the male." The chief symptoms of this condition are a localized, continuous, dull aching pain, extending its area, and increased on touch or motion, together with a directly recognizable enlargement and tenderness of the implicated gland. This condition in its acute stage is invariably attended with well marked constitutional or febrile disturbance, and subsequently, as the disease becomes chronic, with a long train of menstrual derangements and neurasthenic disorders, which are not infrequently ascribed to other causes. The later or chronic form of gonorrhœal oöphoritis may, moreover, if neglected, lead to serious structural local changes, including suppuration, softening, or even complete disintegration of the stroma of the affected organ. In some cases I have seen the ovary itself converted into a thin-walled pyogenic cyst containing a quantity of intolerably fœtid pus. In one of these instances the cyst eventually ruptured into the peritoneal cavity and so proved fatal. In another case this result was averted by timely removal. Fortunately, however, the consequences of chronic gonorrhœal oöphoritis are by no means generally so immediately grave as in the cases just referred to, more common results being chronic enlargement from congestive hypertrophy of the affected glands, with consequent menstrual derangements and infective hyperæmic changes in the adjacent pelvic peritoneum, while in some instances of this kind the ovaries ultimately become nodular and atrophied and ovulation ceases.

With reference to the other intra-pelvic complaints of which gonorrhœa is a fertile source, I shall only here observe that long clinical experience has convinced me that in a large proportion of instances peri-uterine phlegmon—or, in other words, all those chronic inflammatory lesions of the pelvic

serous and connective tissues formerly included in the term pelvic cellulitis, and subsequently better known as perimetritis and parametritis—may be found traceable to that infection. In this connection I may venture to express the conviction that in dealing with possibly suspicious mucoid, as well as muco-purulent, discharges from the female genitalia, it will, as a general rule, be found safer for the practitioner, without expressing his opinion, to treat the case as gonorrhœal. Nor should he, I think, wait for that certainty which may be obtained from the recognition of gonococci before resorting to the free and frequently repeated daily local use of efficient germicidal agents such as bichloride of mercury (1 in 2000), creoline (1 in 200), or lysol (1 in 100), these solutions being employed conjointly with insufflations of loretin, not merely until, but for a considerable time after, every trace of the disease has apparently subsided. In this way alone can we insure that if the case should be gonorrhœal our patient may be saved from the possibility of the complications which have been referred to in this paper; while, on the other hand, if the discharge be simply leucorrhœal, this plan of treatment can do little if any harm in any case, and in the majority of instances will probably prove the most efficacious that could be adopted.—THOMAS MORE MADDEN.

UNCONTROLLABLE, INTERMITTENT, LARYNGEAL CRY.—A boy, aged eleven, began in March, 1895, one night when in bed, to utter at irregular intervals a loud cry. This he continued to do until August, 1895, when he went to stay for about ten days in the country, and toward the end of the visit the cry "gradually" ceased. At Christmas, 1895, a second attack came on at 3 A.M., and has continued since. He appears to be dull and stupid, with hands and arms continually working like those of a child with chorea. At intervals, varying from about twelve seconds to one and one-half minutes, he utters an explosive, sudden cry of considerable volume, very like part of a milkman's cry, but not resembling any word. The cry is associated with somewhat violent action of the diaphragm and with a lifting of the soft palate. It is never emitted during a laryngoscopic examination, but directly afterward. The boy has double proptosis and adenoids of the naso-pharynx. I think removal of adenoids (which would remove a source of irritation and insure sounder sleep), in conjunction with the administration of arsenic

and a prolonged change of air in the country, the only treatment likely to improve the patient.—BOND, in *Medical Press and Circular*.

MUCOUS MEMBRANE OF THE RECTUM.—Criticising Whitehead's operation for piles, Doctor Edmund Andrews says: "A description of the peculiar mechanism and important functions of the mucous membrane and sub-mucous tissue of the rectum will show that we are not dealing with a simple, smooth, mechanical tube, but with a highly specialized organ, which cannot be dissected out and destroyed without doing great and irreparable mischief to the patient. The mucous membrane of the lower inch of the rectum has a peculiar mechanism, constituting it a tactile organ which is the seat of a very acute special sense, by which a healthy person is warned of the presence and downward progress of the fæcal mass. Its nerves also possess remarkable reflex powers over the sphincter muscles, so that they resist the sudden and unexpected escape of fæces and flatus, without the necessity of a constant mental attention and exertion of the will."—*Mathews' Medical Quarterly*.

GANGRENE AS A COMPLICATION OF TYPHOID.—In gangrene following the continued fevers, especially typhoid, it is best, as a rule, to wait for the line of demarcation, but the operation should not be deferred long after its appearance. If danger of septic infection or speedy exhaustion should appear, immediate amputation at or above the probable limitation of the disease should be done. The extension of the disease, if the femoral be free, will not be, in the majority of cases, above the tubercle of the tibia. If the femoral be involved, necessitating an amputation of the thigh, the resources and the safety of modern antiseptic surgery would lead us in general to amputate, but in some cases it may be a serious question whether expectant treatment and a relatively long-subsequent amputation might not be less dangerous than an earlier operation.—W. W. KEEN, in *Boston Medical and Surgical Journal*.

ANEURYSM OF THE HEPATIC ARTERY.—A man forty-two years of age was kicked in the abdomen by a horse; there followed pain in the hypochondrium, intermittent icterus, vomiting of blood, and the passing of fresh or altered blood by the rectum. The diag-

nosis was ulcer of the duodenum. Laparotomy was performed, but without revealing the seat of the hæmorrhage. Nevertheless gastro-enterostomy was made. The patient died five days later. Autopsy showed a spurious aneurysm of the right branch of the hepatic artery, in the liver tissues, and communicating with the right branch of the hepatic duct. An analysis of nineteen cases previously reported evidences the diagnosis is never made during life, the condition being mistaken for ulcer of the duodenum or gallstone.—*Zeitschrift für Klinische Medicin.*

UTERINE CANCER.—The great error often made is in expecting to find these women emaciated, with marked cachexia, hæmorrhage, pain, stinking discharges, etc., as evidences of the presence of malignant diseases. Pain comes on late and is often absent. Bleeding of a profuse character is rare, especially very early in the history of the disease. Foul watery discharges, so often alluded to, are sometimes absent. An irregular flow between the periods is the symptom most often noticed, and is important especially if it occurs in a woman past the climacteric and following sexual intercourse. Many cases are much complicated, and the dangers from the operation much increased from adhesions, the result of delays and tinkering.—*International Journal of Surgery.*

HIP-JOINT DISEASE.—In young children the very beginnings of hip-joint disease are announced by muscular twitchings during sleep; added to this, the subject is irritable, the secretions are disturbed, the appetite fictitious, the muscles flabby and shrunken away on the affected side, the countenance pale, and the signs of illness very apparent. Soon follows a little limp in the gait, attended with pains in the knee or ankle-joint—not often in the hip. These pains are at first very slight and may escape attention unless the medical attendant is very alert. A rise of temperature will be sometimes noticed in the evening, and it may be continuous; toward the last of this stage more or less spasm of the muscles will have supervened.—*Medical Arena.*

TAPEWORM AND URINALYSIS.—In making an examination of urine, I found the specific gravity 1.005, no albumen, no sugar. I was a little surprised in not finding albumen, with so low a specific gravity. In six or seven days the same individual came to me to be

relieved of a tapeworm. The idea struck me—this might account for the low specific gravity. Five days after removal of the parasite I re-examined his urine and found specific gravity 1.020, no albumen, no sugar. If this is a diagnostic point, I have made a discovery.—PUGH, in *Texas Medical Journal.*

NUTRITIVE VALUE OF CORN MEAL.—Professor Atwater, who has for many years been engaged in investigations relating to foods for the United States Department of Agriculture, has been led to the conclusion, as the result of exhaustive studies on the subject, that, considered from an economical standpoint, corn meal has the highest nutritive value of all foods. Ten pounds of corn meal contain more than eight pounds of actual nutriment, while the same quantity of potatoes possess but three-fourths of a pound of nutrient material.—*Modern Medicine.*

HYDROPHOBIA.—Doctor Louis McLane Tiffany, for many years a prominent teacher of surgery in Baltimore, says that he never saw a case of hydrophobia in an extensive surgical practice of twenty years. He further declares that he never saw an honest surgeon who was certain that he had seen a case. There is no doubt that most reported cases are only instances of tetanus when following soon after the reception of the injury, or of meningitis or other cord lesion when occurring many months after the dog-bite.—*New York Medical Times.*

GONORRHOEA IN WOMEN.—Not less than twelve per cent. of all the women who consult the specialist, exclusive of prostitutes, have gonorrhœa or its sequelæ. It is the cause of not less than fifteen per cent. of all cases of puerperal fever. It is responsible for seventy per cent. of all cases of sterility in women. It is the skeleton in many a family closet.—ROSENWASSER, in *Hot Springs Medical Journal.*

DIPSOMANIA FROM TRAUMATISM.—The *Presse Médicale* reports a case occurring in an officer who was thrown from his horse and dragged some distance, injuring his head and wounding the nucha quite extensively. An excessive thirst for alcohol developed; he also became erotic, and manifested a suicidal tendency.—*Medical Century.*

The Medical Age.

VOL. XIV.

DETROIT, OCTOBER 26th, 1896.

No. 20.

Original Articles.

TYPHOID FEVER.*

BY JOAO VICENTE TORRES HOMEM.

Typhoid fever, the *dothin-enteritis* of Bretonneau, *abdominal typhus* of the German physicians, was a rare disease in Rio de Janeiro up to 1870; from that date up to 1877, particularly after the epidemic of yellow fever in 1873, it became much more frequent, still, however, not to a degree to compare with malarial pyrexias and American typhus (yellow fever).

The greatest number of cases of typhoid fever are observed from March to June;† at the beginning these cases are mingled with those of yellow fever, but afterwards are manifest separately. Sometimes the affection is extremely benign, the muco-gastric fever or mucous typhoid (*typhus levissimus* of Griesinger); sometimes it is accompanied by the grave characteristic symptoms.

The fevers denominated *ataxic*, *adynamic*, *low nervous*, or *putrid*, are various forms of typhoid, which have received these appellations from some of the older physicians in accordance with the predominance of certain symptoms. With us, as in Europe, is observed the preponderance of certain series of organs in the midst of the multiple and various lesions of typhoid fever; thus in some cases the digestive system is the part most involved (abdominal form); in others it is the respiratory system, and a lobular or lobar pneumonia manifests itself in the course of the disease (thoracic form); in others, again, it is the nervous system, especially the brain, and symptoms of well marked cerebro-meningitis

are apparent (cerebral form). The spinal form, admitted by Fitz,* is so excessively rare I have scarcely met with it; but on the other hand, the bilious form (bilious typhoid fever of Griesinger) is very common.

Although the malarial poison often produces pyrexias which take on the typhoid condition, still we do not observe genuine abdominal typhus developing under the influence of marsh miasm. It is the miasmata of animal origin, generated under numerous and varied conditions, which in Rio de Janeiro, as in any other part of the world, produce typhoid fever. The putrid emanations from latrines, from sewer-pipes (including the drinking-water which received these emanations by infiltration, or by free communication with large deposits of decomposed animal matter), from tainted meat exposed to sale by the base greed of some shopkeepers, and purchased at a low price by the poorer classes, and the vitiated air resulting from the crowding of many persons in a narrow unventilated apartment, where all the evils of a confined atmosphere are perceptible, are, with us, the more common sources of the typhoid miasm. The great majority of Brazilian physicians do not believe in the contagiousness of typhoid, and there is no instance of a genuine epidemic of this affection developing in Rio de Janeiro. As in all European countries, *dothin-enteritis* is much more frequent in the cities, in the great centres of population, than in the country and suburbs.

With us the malady often manifests itself in a different manner from that seen in Europe, especially in France, and this difference in the symptomatic physiognomy of the disease is noticeable not only after it has reached

*Translated from the "Estudio Clinico sobre as Fiebras do Rio de Janeiro," by Doctor George Bradley, U. S. Navy.

†Corresponding to our autumn.—TRANSLATOR.

*M. E. Fitz: Etude Clinique sur Divers Symptômes Spinaux Observées dans la Fiebre Typhoide.—Thèse, 1864.

its maximum development and is running regularly through its stages, but also (and chiefly) in the first period of evolution, and when it is advancing to its height. As I have already remarked, it is not rare for typhoid to commence like a regular intermittent of a quotidian or double tertian type, the paroxysms of which, far from being modified by quinine, on the contrary recur with increasing severity, last during a period each time more prolonged, and leave progressively shorter apyretic intervals between them; the fever becomes remittent and finally continued, and it is only then that the characteristic symptoms are patent.

I had opportunity to observe many cases in 1873, both in hospital and private practice. Is the malarial influence, which constantly dominates the medical constitution of Rio de Janeiro, the cause of this anomaly in the evolution of typhoid fever, or is it the influence of climate and the geographical conditions of our city? This question is not easy of solution, but the fact is to be noted and should serve as a guide to physicians.

In many instances the disease begins like a sub-continued malarial pyrexia: for two, three, or four days the patient has fever, which increases from afternoon to night, and diminishes from early dawn to morning,—no other symptom attracts the physician's notice, except at times a little congestion of the liver, which authorizes still more the diagnosis of malarial fever, and induces the practitioner to insist on the salts of quinine in larger doses. It is only later, on the fifth or sixth day, that delirium at night supervenes, and that other symptoms appear by which it is possible to clear up the diagnosis.

In some patients the prodromic stage of the affection lasts for many days: they lose appetite, become indolent, wish to lie down, feel extremely weary, and during the afternoon experience an uneasy sensation of intense heat without the slightest increase of temperature noticeable on the surface; thus they pass a certain number of days, until febrile reaction appears, attended by headache and at times with slight bronchitis. I have yet to see a single case of typhoid where the beginning of the disease was marked by a chill.

Fever is doubtless the first symptom to

enter the field in typhoid. There are cases where we observe in the course of the febrile heat that regularity, graphically represented by a zig-zag line, of which modern pyretologists speak, and which is so esteemed by Professors Wunderlich in Germany, Sée and Jaccoud in France, and Costa Alvarenga in Portugal (Cases 1 and 2): but unfortunately there are also instances in which this regularity is completely wanting, and the thermometer will lead into error the physician who confides too much in the observations of European and North American practitioners (Cases 3 and 4). As a general rule, in the very grave cases appearing at Rio de Janeiro, the course of the temperature is exceedingly irregular,—I have observed some in which the febrile heat almost disappeared for twenty-four hours, during which the patient appeared about to become convalescent; the next day, without any appreciable cause, the fever recrudesced, and grave symptoms referable to the nervous system set in. I have seen several instances where the difference between the morning and evening temperature was more than a degree, at times even two degrees, Fahrenheit. In others the reverse occurred,—the morning heat differed barely by one or two tenths of a degree from the evening. These anomalies of temperature in abdominal typhus occur with us independent of any complication and of the influence of vigorous and perturbing medication.

During the first week the symptoms usually represented are: febrile temperature 104° in the evening, 103° in the morning; pulse frequent and full (90 to 110); headache slight; prostration of strength; expression stupid; tongue furred in centre and reddish at tip and edges; thirst; anorexia; some abdominal tympanites, and bowels constipated; sometimes congestion of the liver and lessening of urinary secretion; some cough; catarrhal râles scattered over both lungs; restlessness at night; insomnia and occasionally subdelirium. Such appears typhoid fever in the first days of its development, whatever may have been the prodromic symptoms.

Epistaxis, very frequent in other countries, is rare here, and appears most frequently in children; diarrhœa is extremely rare, while constipation is almost infallibly present in the first week; gurgling of the right iliac fossa is

manifested only later on; the typhoid spots only appear in exceptional cases and very tardily.

The disease progresses, the second week begins, and the disorder then acquires its distinctive characteristics, which keep on growing more prominent as the third week approaches. The facial expression is profoundly changed and the patient keeps in the dorsal decubitus as if he had been glued to his bed; does not make the slightest movement with his body; his features are sunken, the malar regions prominent, his mouth remains half-open, showing the teeth covered with sordes; the nasal fossæ are sometimes lined with little blood-clots, sometimes dry; the gaze fixed, expressionless, denoting apathy and stupidity. The tongue appears dry, red, and drawn in; at the end of the disease it resembles a bit of roast meat, becomes tremulous, and the patient cannot put it out of the mouth. The belly becomes very tympanitic and tender, chiefly in the iliac regions, and especially in the right, where gurgling is perceptible. Diarrhœa, which is the rule in European countries, particularly in France, is with us the exception,—almost always constipation is observed, save in the advanced stages of the affection; the liver rarely fails to be congested, while engorgement of the spleen is little marked and at times wanting: the thirst, which at the beginning was intense, ceases to be manifest, which is explained by the condition of the brain, nullifying sensation. The urine becomes high-colored, scanty, at times albuminous, and deprived of alkaline phosphates and chlorides.

The nervous system is the seat of profound disturbance. At the end of the first week the headache disappears, and is sometimes replaced by pains in the upper and lower limbs; perturbations of sight and hearing appear, as also vertigo and nightmare; delirium sets in from the commencement of the second week, mild and intermittent on its first manifestation and revealing itself only during the night, later on loquacious, a little noisy and continuous, yet almost never reaching the height of maniacal delirium requiring the use of the strait-jacket. With delirium are combined other grave symptoms, such as carphologia, crucidismus, subsultus tendinum,

tremor of the upper limbs, sometimes genuine convulsions, hiccough, and coma.

In the respiratory organs are observable the symptoms of capillary bronchitis, lobular pneumonia, or even lobar pneumonia, with hepatization of the lung.

In many cases very confluent sudamina are noted upon the skin; in some, discrete petechial spots; in others, more rarely, the roseolar typhoid eruption which in Europe is so characteristic of the affection.

With the onward march of the disease, the pulse becomes soft, weak, small, and very frequent; the febrile heat, whether or no it has followed the cyclic course, persists at a very high degree (105° – 106°), without marked oscillations; the patient lies in a state of marasmus, sunk in profound adynamia, in constant dorsal decubitus, with the trochanteric, gluteal and sacral regions ulcerated and gangrenous by reason of the pressure of the bed and the little vitality of the tissues. The tongue, dry, cleft, and blackened, cannot be protruded from the mouth, and impedes the articulation; the teeth, blackened and covered with sordes, help to make the patient's breath fœtid. The belly becomes prominent, tympanitic, and painful. Sometimes, at the last, a profuse and frequent diarrhœa appears; again, true intestinal hæmorrhages occur, and the patient passes by stool an enormous quantity of dark, thick, and homogeneous fluid. The urine is scanty and at times albuminous. The exaggeration of the broncho-pulmonary symptoms, together with the great distention of the abdomen which forces up the diaphragm towards the thoracic cavity, produces a frightful dyspnœa, which torments the patient much in the last days of his life. The delirium, in the form of typho-mania, lessens with the soporose condition; the other ataxic phenomena referred to increase; and death supervenes after the extremities have become cold and the body is covered with a profuse clammy and icy sweat.

During the first week and the first days of the second, the most frequent symptoms of typhoid fever, with us, are, the apathy of face, adynamia, abdominal tympanites, and bronchial catarrh. Very commonly in the course of the disease, especially from the second to the third week, a cerebro-menin-

gitis develops, highly aggravating it, determining the patient's death prematurely, and demanding direct and special treatment.

That which I have observed in Rio de Janeiro in this respect, Doctor Chidevergne has observed upon a large scale in France. The great majority of European physicians, and especially modern ones, believe that the cerebral symptoms are not related to the lesions of the nervous centres found on autopsy, but that they are attributable to ataxia; and when some anatomical changes are observed, they are explained by the effects of the moribund state and by post-mortem inhibition. I have met with some cases where the patients presented hallucinations of the senses, acute and raving delirium, general or partial convulsions, cramps, strabismus, and very intense headache, and in two of these—one in the university hospital, the other in the Hospital of Nossa Senhora da Ajuda—these very grave symptoms yielded completely to the use of leeches at the base of the skull, ice-bags to the head, blisters to the lower extremities, and calomel in fractional doses,—both recovered. In another hospital patient who also presented about the same symptoms, death resulted, and the autopsy revealed in a very marked manner the anatomical changes proper to cerebral meningitis (Case 3).

Intestinal hæmorrhage, which appears to be frequent in Europe, is very rare with us: I have met with it only four times, and, as a noteworthy fact, far from exercising a pernicious influence upon the termination of the disease and hastening death—as Trousseau says in his clinical lectures—it was, on the contrary, always favorable, and aided the patient's recovery: in one instance particularly, a case under treatment in the Hospital of Nossa Senhora da Ajuda, the resolution of the existing grave abdominal symptoms, the diminution of fever, and the cessation of delirium, took place three hours after a profuse enterorrhagia, which had caused syncope. In a lad of fifteen, residing in the Rua dos Senado, the intestinal hæmorrhage gave rise to profuse perspiration and to diminution of abdominal pain and tympanites; twenty-four hours later the patient was sensibly improved.

A phenomenon very common at Rio de

Janeiro, of which the French physicians, especially Professor Behier and Doctor Bouchut, have latterly treated, is the delirium supervening after the patient has recovered from the typhoid fever, revealed by words and deeds denoting insanity and perversion of reason, without the occurrence of mania; it is a species of dementia, due to the profound prostration of the intellectual faculties (delirium of inanition, cerebral anæmia). The subject of it seems like an infant, and knows not what he says or does. The hospital patient who improved a little after having the enterorrhagia, was deprived of his full reason for the space of three months. He was a young man of thirty-two, well educated, partner in a business house of the Rua dos Violas. After his recovery, he went to convalesce at the country house of a friend who esteemed him highly, and in the presence of the family and of the lady of the house, at breakfast-time, I saw him try to urinate in a cup, without the least constraint, as if he was performing a perfectly natural act; he ate with his hand, and spent whole hours in playing with the shells of the garden walk; he entirely forgot his name, his age, the most important and capital facts pertaining to his business; he asked foolish questions, and his responses were rarely connected. With cold baths, iron, cinchona, wine, and restorative diet, this young man recovered completely. This kind of delirium, whether by its mode of manifestation or by the pathogenic conditions governing its development, differs greatly from that which appears in the first week of the disease, in which there is often hyperæmia of the vessels of the meninges.

In the so-called cerebral form of typhoid fever, there are observed, with us, the symptoms of cerebro-meningitis of which I have already spoken.

In the abdominal form there is not always diarrhœa, and the abdominal tympanites becomes very marked.

In the thoracic form we observe the symptoms of a double capillary bronchitis, or of a fibrinous lobar pneumonia, with hepatization of an entire lobe of the lung; in the one case, as in the other, it is not easy to decide during the first weeks if it be a case of the thoracic form of typhoid fever, a typhoid pneumonia—that is, a pneumonia attended

with some typhoid symptoms—or an acute general tuberculosis.

In the bilious form, very common in Rio, besides the symptoms peculiar to typhoid fever, a very intense jaundice appears; the tongue is coated with yellowish fur, the liver becomes highly congested and enlarged, there is diarrhœa and vomiting of bile, and the urine is loaded with bile-pigment. This form is not due, as Doctor Jaccoud says, to a coincident catarrh of the duodenum, for if this were the case the bilious element, which highly aggravates abdominal typhus, would be easily and promptly relieved, and would not be accompanied by profound anatomical and functional derangements in the hepatobiliary system. Before the bilious element manifests itself, there is no diarrhœa, nor any other intestinal symptom indicating catarrh; again, autopsy always reveals material lesions of the liver, compromising the secretion and excretion of bile.

The benign form of typhoid (*typhus levis-simus*) often occurs with us simultaneously with the appearance of grave cases, and it is not rare to see a patient with a muco-gastric fever, which represents the benign form of which I speak, attacked later on by the grave symptoms of the disease, either because he has committed some imprudence at the beginning of convalescence, or because a too vigorous and untimely treatment has shattered his strength, or because some heavy electric disturbance of the atmosphere occurs, or in consequence of inappreciable causes.

In the mild form the patient presents the symptoms of gastric derangement, sometimes with a little diarrhœa, sometimes with constipation; the fever assumes the same continued type, with morning depressions and evening exacerbations, as in the graver form, but with the difference that the maximum febrile temperature never goes beyond 103° , almost always persists at 102° , and the differences between the morning and evening temperature are very marked, usually comprising nine-tenths of a degree, and at times two degrees and more. The face takes on the aspect of apathy and stupidity, but on a smaller scale—one almost never observes in these cases the typhoid *facies*; there is adynamia, at times epistaxis, often bronchial

catarrh and abdominal tympanites. The tongue, which throughout the course of the affection is covered with white fur, more or less thick, occasionally becomes a little dry at the tip, especially when there is abuse of purgative medication.

Some deny that the so-called mucous fever, which I have just briefly described, is a benign form of typhoid, and would have it constitute a distinct pyretological species. With us, this opinion found defenders in the bosom of the Imperial Academy of Medicine, without a single reason of a practical order being brought forward in its support. The most noted pyretologists of France and Germany, those who endeavor to solve clinical problems at the bedside, and by post-mortem, scalpel in hand, think precisely as I do. If the influence of causes, the nature of the symptoms, the course of the disease, the time of its appearance, and the treatment it requires, were not sufficient, we should have pathological anatomy, interpreted by Rokitsansky, Griesinger, Béhier, Sée, Jaccoud, Bennett, and Murchison, which shows us the characteristic intestinal lesions of genuine typhoid fever, and of the dothin-enteritis of Bretonneau, in cases of typhoid mucous fever, when the patient dies in consequence of some complication or some grave disease appearing during convalescence. We have many instances recorded in the monumental work of Professor Andral, where autopsy demonstrated the existence of changes in the follicles of the small intestines, more or less profound and extensive, in persons who fell victims to pneumonia—changes that supervened in the course of a mucous fever so benign that Lerminier would have termed it gastric fever. We have two instructive cases, referred to in Murchison's book on fevers, of rupture of the intestine and hyper-acute peritonitis, consecutive to ulceration of Peyer's glands, in patients who had a mucous fever so benign that one of them had been in bed hardly nine days, and the other six: in both these cases the treatment consisted of a saline purgative and lemonade. We have, finally, the important case published in the August 1862 number of the *Gazeta Medica*, of Rio de Janeiro, relative to a patient in the fourth ward of the Mizericordia Hospital, then under my charge,

who, having had an extremely benign mucogastric fever, without delirium or diarrhœa, or dryness of the tongue, was attacked during convalescence with intestinal perforation, while he was chatting with his comrades in the garden; the autopsy showed the anatomical lesions peculiar to typhoid, in various stages of development; by the side of the ulcer of the ileum which had perforated that portion of the intestine, was another, completely cicatrized, the cicatrix being of recent date.

Intestinal perforation is a complication sometimes observed at the close of typhoid fever, or in the midst of convalescence, especially when the patient, heedless of the physician's advice, commits abuses of diet, either taking food difficult of digestion, or overloading the intestinal canal with a great amount of alimentary matter. I have not found the least relation between the terrible accident of perforation and the gravity of the dothin-enteritis. Out of four cases recorded in my notes, two were consecutive to the benign form of typhoid fever, one to a very grave form, and in one the disease had been of moderate gravity. In the two former the patients were quite convalescent; in the third the symptoms of the ascending period were in full activity, the fever was in the twenty-fourth day, there was great abdominal tympanites and diarrhœa; in the fourth, the nervous symptoms had yielded, the fever was now moderate, and there still persisted barely some tympanites, and some pain in the iliac region, much increased by pressure and percussion.

(To be continued.)

PROSTITUTION.

BY C. C. MAPES.

Prostitution, like many other vices, is distinctly and essentially human; not a trace of it can be found in the animal kingdom, nor indeed among savage races; it is purely a product of civilization, and has existed, to greater or less degree, in every civilized nation since the beginning of history—nay, we doubt not the evil also prevailed in the prehistoric age. It is a crime against nature, and instead of being a sin *of* instinct, it is a sin *against* instinct. Sexual instinct has been

called "animal," and so it may be, but its perversion and prostitution occur only in the *genus homo*; it would therefore appear that in that respect civilization is beneath both the animal and savage. The Bible furnishes abundant proof that prostitution was common in the earlier ages, though the scriptures themselves teach that there shall be no harlotry, and specify punishment therefor:

Woe to the bloody city [Nineveh]: it is all full of lies and robbery. . . . The horseman lifteth up both the bright sword and the glittering spear; and there is a multitude of slain; and there is no end of their corpses; because of the multitude of the whoredoms of the well favored harlot, the mistress of witchcrafts, that selleth nations through her whoredoms, and families through her witchcraft. . . . Then went Samson to Gaza, and saw there a harlot, and went in unto her. . . . Do not prostitute thy daughter, to cause her to be a whore, lest the land fall to whoredom, and the land become full of wickedness. . . . They shall not take a wife that is a whore, or profane; neither shall they take a woman put away from her husband. . . . And if thy daughter profane herself by playing the whore . . . she shall be burnt with fire. . . . Let her therefore put away her whoredoms out of her sight, and her adulteries from between her breasts; lest I strip her naked, and set her as in the day that she was born, and make her a wilderness, and set her like a dry land, and slay her with thirst. And I will not have mercy upon her children, for they be the children of whoredoms. For their mother hath played the harlot: She that conceived them hath done shamefully; for she said, I will go after my lovers, that give me my bread. . . . But she . . . shall not find them; then shall she say, I will go and return to my first husband; for then was it better with me than now. . . . I will discover her lewdness in the sight of her lovers, and none shall deliver her out of mine hand. . . . I will destroy her vines and her fig trees . . . and will visit upon her the days of Baalim, wherein she burned incense to them, and she decked herself with her ear-rings and her jewels, and she went after her lovers. . . . So I bought her to me for fifteen pieces of silver, and for a homer of barley, and a half homer of barley. And I said unto her, Thou shalt abide with me many days. . . . For they shall eat, and shall have enough; they shall commit whoredom, and shall not increase. . . . For the spirit of whoredom hath caused them to err, and they have gone a whoring. . . . Therefore your daughters shall commit whoredom, and your spouses shall commit adultery, . . . for themselves are separated with whores, and they sacrifice with harlots; . . . their drink is sour; they have committed whoredom continually. . . . Solomon loved many strange women, together with the daughter of Pharaoh, women of the Moabites, Am-

monites, Edomites, Zidonians, and Hittites. . . . And he had seven hundred wives, and three hundred concubines. . . .

These passages are simply cited to show the extent of prostitution, harlotry or concubinage during Bible times.—It is stated that even good old father Abraham had a concubine, Katurah, who bore him many sons. That it also existed before the Biblical era, in the prehistoric age, I doubt not, as there is scientific evidence to corroborate the belief that the world was populated by at least partially civilized people in the prehistoric age. This vice has evidently been promulgated without cessation since its inception, as casual mention is made of its evils in almost every book of historic merit. How or why the first case of prostitution occurred, or to what cause it may be attributed, and just when it occurred, can only be conjectured.

Ancient, or even modern, scientific literature is strangely meagre as to statistical information on this subject. In fact, we can gain little or nothing from the authorities, except that prostitution everywhere exists, and has existed since the earliest ages—which is of no practical value in a statistical way. Whether the vice is declining or progressing, whether the number of women engaged in this "trade" is greater or less to-day than twenty or a hundred years ago, would be difficult to determine. The natural inference would be, however, that the filthy traffic has increased just in proportion to the increase in population, as the greater demand must be offset by corresponding growth in the supply.

What class of society furnishes the majority of prostitutes, and why they become such, are questions that demand our attention in considering the subject. On these points, also, literature is strangely blank. The popular impression that prostitutes possess intelligence, education, beauty, and refinement; that they emanate equally from the two extremes of society, and all the way from the highest to the lowest; that they are forced into "the business" by seduction, the victims of man's lust, etc., is erroneous. Observations among the *demi monde* will convince the most skeptical that not one in ten gives evidence of a spark of refinement, education,

or even average intelligence. In my studies of this subject I have found only two prostitutes who possessed education: One was the only child of a Southern planter, her mother having died when she was quite young. She was reared in affluence, every desire having been gratified by an indulgent father; her education, musical and literary, commenced in this country, was completed in Europe; she knew nothing, however, of the common and more substantial things of life. Reverses came, and shortly after her return from abroad her father died, leaving practically nothing but mortgaged estates which were quickly confiscated. Left alone, she drifted into prostitution as a means of subsistence rather than beg or starve. She possessed unusual musical ability and was a brilliant conversationalist, and by considerable persistent inquiry the history above given was elicited. The other became a prostitute, I believe, from choice, as she belonged to that class of women styled "she-devils." No history could be obtained. She entered the "trade," in my opinion, out of "pure cussedness," and the result would have been the same, educated or not. What proportion of prostitutes belong to this class it would be difficult to determine.

It is fair to conclude that the vast majority of prostitutes come from the lowest class, the most worthless variety—criminals, degenerates, the idle, mercenary, shameless, etc.—few from the middle classes, and practically none from the highest grade of society.

As to the question of beauty in the realm of prostitution: One writer very aptly says: "Whatever other evils the fatal power of beauty may be responsible for, it has no more to do with prostitution than the flowers that bloom in the spring." A beautiful or even attractive-looking prostitute is a rarity; and this may also be applied to the so-called street-walking variety, clandestines, etc. Their shapely figures and faultless complexions are not of nature, but of "art"—the product of the upholsterer, the tailor, the hair-dresser, and the complexion specialist. After seeing the creature "made up," one would hardly recognize her in the natural state, in the slums, with disheveled hair and wrinkled, pallid and haggard cheeks.

From careful studies of the subject, aided

by the meagre information to be had from literature, I am led to believe the motives which induce women to enter prostitution are about as follows:

	Per cent.
Tinsel, display, luxury, idleness, and flattery, about	63
Uncongenial or pernicious family or home surroundings.....	19
Desperation from lack of employment, etc	7
Seduction (primary).....	2
Other causes	9
	100

From this it would appear that the prospect of idleness, luxury, and display—silks, satins, diamonds, champagne, and the like—first tempts more than half the members of the Cyprian sisterhood to their nefarious trade. Next come family surroundings or pernicious influences at home, with nineteen per cent.; and I believe this estimate should be even higher, when we consider the unfavorable moral, hygienic, sanitary and social surroundings of most people of the lowest class—the class from which, in my judgment, emanate about ninety per cent. of prostitutes. As to the other causes, little need be said. The seduction cases, I believe, are very rare—almost as rare, in fact, as beauty among prostitutes.

Regarding the effect of prostitution upon the race: It seems a wise provision of nature that prostitutes do not and cannot follow the dictum, "Be fruitful and multiply." The very nature of their occupation renders them almost universally and absolutely sterile. Probably every prostitute during the first year of her career, in spite of preventives, becomes pregnant from one to three times; after that, practically never. When conception occurs, abortion is immediately resorted to; if the attempt results in failure, infanticide is usually practiced; if perchance a child is born alive, it rarely survives from ignorance, disease, or neglect. If there be anything in hereditary tendencies, we have reason to feel thankful that women of this stamp do not propagate their species. Before the end of the first year of their professional career, most of them have contracted the usual diseases incident to their occupation, and to these diseases is generally attributed the loss of their childbearing func-

tions. Women who have been in the "business," then, one year or more, are, as a rule, absolutely unable to propagate their kind, or practically so, and the chances are a hundred to one that during the first year not one child has survived the ravages of disease (or neglect), so that in the majority of instances the prostitute ends the chapter without leaving a descendant; for which humanity should be thankful—that the kind is not continued.

The life duration of the prostitute, after she is fairly embarked, has been variously estimated at from four to ten years. From my observations a fair average is eight years. This is rather more than is popularly believed, and somewhat under the figure given by most other writers. Of course, many die from exposure during the first two years of their professional career. Others seem to resist disease, exposure, and all other factors, and live to reach forty and even fifty years of age, eventually dying from tertiary syphilis, or (occasionally at that age) from other affections.

As to the causes of death, except in isolated cases such as above mentioned, I must also differ from most writers. I believe that pulmonary disease stands pre-eminent as the primary causative factor, with alcohol second; unless alcohol be counted as a predisposing cause in the production of pulmonary troubles, which might give it first place. My studies indicate the following classification:

	Per cent.
Pulmonary diseases superinduced by exposure, etc.....	50
Alcohol.....	20
Morphine, chloral, etc.....	8
Suicide.....	10
Other causes, including venereal diseases, and accidents	12
	100

It is a notable fact that few prostitutes die from the primary effects of venereal diseases, especially in recent years, and I may say that comparatively few die of the later sequelæ. The bacteriologist tells us that about fifty per cent. of cases of pyosalpinx are due to gonorrhœa; this being true, it should naturally follow that at least fifty out of every hundred prostitutes should be subjects of this malady, but when carried this far observation does not prove the rule to be entirely

correct. That many do so suffer is true, but death does not often result from this cause. It would not seem that prostitutes are operated upon much oftener for relief of pyosalpinx and other tubal or ovarian troubles than women in other stations of life.

Regarding the effect upon men who bask in the sunshine of the *deminondaine*: A long train of evils follows in the wake of either syphilitic or gonorrhœal infection. In the light of modern scientific research, one might choose the former as the lesser evil. However that may be, by infection with either disease the man is practically rendered incapable of propagating his kind for an indefinite period, and may even be rendered sterile for the remainder of his days. Again, if there be anything in inherited or hereditary tendencies, it is a blessing that male as well as female prostitutes are, by the very nature of their acts, rendered sterile, so that the breed be not propagated.

If evil resulted only to the male who embraces the "strange gods" of prostitution, then he would simply be receiving his just dues for sinning against nature, woman, and himself; unfortunately, however, he not only becomes himself infected, but usually infects his wife and it may be his unborn child, the two latter being innocent victims.

The characteristics and evils of inherited or acquired syphilis are so well known that the subject need not be dwelt upon here, but a word may be said as to the effect of gonorrhœa, with especial reference to its transmission to the wife. It is a deplorable fact, and rather surprising also to one who has not given the subject a thorough and scientific study, that gonorrhœa is alarmingly prevalent, especially among males, in what is termed "polite society." Cases are not infrequent where the husband visits a brothel, becomes infected, and in turn transmits the disease to his wife. That such instances occur, and that their occurrence is not infrequent, cannot be controverted, though in many cases we are told that the infection was innocently acquired by the husband. Statements of this kind must always be taken *cum grano salis*, as statistics prove that cases are indeed most rare where the adult male becomes infected with gonorrhœa, except by sexual intercourse with a female having the

disease, his arguments to the contrary notwithstanding. Until recent years gonorrhœa was looked upon as a matter of little consequence in either the male or female. Cures (?) in the male were accomplished within a fortnight, by simple treatment, and in the female the disease hardly merited attention of the physician. If the same male afterward developed urethral stricture, or trouble with the bladder, testicles, or kidneys, or if the female presented unmistakable evidences of pyosalpinx, etc., it was not thought in either case that the subsequent disease in any way resulted from, or was a sequela of, the attack of gonorrhœa which had been so promptly cured (?) on the one hand, or neglected or overlooked on the other. We now know, both from clinical observation and bacteriological research, that the old gonorrhœa was responsible for the mischief. In support of my position, I quote the following from THE MEDICAL AGE:

Physicians generally are not aware of the virulence of gonorrhœa in women. There is no disease more dreadful in its results, more difficult to overcome. It invades not only the vagina, but also the vulvo-vaginal glands, the urethra, the labial glands, the uterus, the Fallopian tubes, the ovaries, and the peritoneum. Its results are far-reaching, causing inflammation of all the organs attacked, the collection of pus in the tubes, pelvic abscess, sterility, and, unless cured, a life of suffering. Most pitiful of all, in many cases, is the fact that the victim is innocent; most shameful of all is the fact that many times the physician himself is to blame.

Ophthalmia neonatorum of gonorrhœal origin is too well understood to require special mention.

According to late statistics, about seventy-five per cent. of children born of syphilitic parents die before they reach the age of six months, but fortunately most conceptions in syphilitics terminate in an early abortion or a still-birth, thus reducing the number of innocent victims to suffer subsequent ravages of the disease.

The effect of prostitution upon unmarried men has received but little attention at the hands of most writers; yet, in my opinion, it is the most important of all. Imagine a young man, on the eve of his marriage to an innocent, physically healthy young woman, visiting a brothel and becoming infected with gonorrhœa or syphilis which does not mani-

fest itself until after the marriage act is consummated! Think of the indescribable suffering inflicted upon the bride who is thus in turn infected! Is it a wonder that many pure women club together and declare that marriage is a failure? Have they not a right to demand and expect health and sexual purity from mankind in marriage? Would they not in disgust refuse to marry the best men in the universe, knowing that they had frequented brothels and slums and tasted the forbidden fruit until their systems had become charged, surcharged and saturated with the virus of syphilis or the equally virulent and persistent germs of gonorrhœa? A thousand times yes! But the unfortunate part is that the female is denied every possible means of gaining correct information upon these vital points, and has to blindly take her chances in entering the matrimonial state, and suffer the consequences. Let us pray that the day is not far distant when higher enlightenment on the part of both sexes will be imperative, when women as well as men may understand these important matters, and can demand of men that they offer themselves in marriage morally and sexually clean and free from all taint; and when syphilitics and gonorrhœics shall be forbidden by law to contract marital alliances; and when these maladies shall be subject to enactments the same as hedge about other contagious and infective diseases. How many young men at the present day arrive at marriageable age without having had gonorrhœa from one to ten times? I dare say, scarcely five per cent. This is a rather sweeping assertion, but I believe the facts justify it. Has the race degenerated, or has vice taken complete possession of us?

Attempts have been made both in Europe and this country, at various and sundry times, to regulate prostitution; but I have been disappointed to find, in a casual review of the statistics, that government, State and municipal control of prostitutes have each in their turn been tried and followed by complete failure as to limiting either prostitution or venereal disease. Gonorrhœa alone is to-day probably doing vastly more harm than diphtheria, scarlet fever, cholera, and small-pox together. The control of venereal diseases is one of the greatest hygienic problems

of the age. A noted authority has said: "It is a hygienic possibility to get rid of venereal diseases, but their suppression certainly is a very difficult problem." Prophylaxis in relation to venereal diseases has hitherto been too much neglected.

Social-evil legislation, conceived for the most philanthropic purposes and envired by the most stringent protection, has failed, not because of opposition from religion or morality, but from a clinical demonstration of the fact that it proved to be a "protection which did not protect." State inspection of prostitutes is maintained in certain governments, but it often fails of its original purpose and in many instances has degenerated into a species of political tax-levying. I clip the following from one of the medical journals, which covers the points involved better than I could possibly do:

There is probably no country in which the province of the so-called Contagious Diseases Act, which relates especially to the inspection of prostitutes, has been so thoroughly carried out as in Germany; nevertheless, the commission appointed by the Society of Medicine, of Berlin, with Virchow as president, recently reported as the result of an investigation that both prostitution and venereal diseases were found to be rapidly increasing in Berlin. For example, the number of regular prostitutes, recognized as such by the police, was, in 1886, 3006. The number had increased in 1891 to 4364, an increase of almost fifty per cent. This represents, however, but a small proportion of the women actually engaged in prostitution, as 16,000 women are annually arrested for plying their vocation upon the streets of Berlin, and it is known that a great number of women live lives of prostitution clandestinely; so the committee estimates the total number of prostitutes in Berlin at 40,000 to 50,000.*

Some idea of the number of persons who are annually infected by venereal diseases may be gained from the fact that the committee reported nearly 80,000 cases as having been treated at two hospitals alone in Berlin between 1880 and 1889. The fact was also mentioned by the committee that a great number of cases were doubtless not included in this category. They quote the estimate of Blaschko, that one in every nine or ten of

*This report is faulty, in that it does not show the relation of increase in prostitution to the increase of population.—ED.

the male population of Berlin has been infected with syphilis.

A most convincing evidence of the utter inefficiency of the inspection service in preventing the spread of venereal diseases was shown by the fact developed, that the naked-eye inspection, which has been universally relied upon in Germany, detects less than one in five of the cases of gonorrhœa, to say nothing of syphilis. By making a bacteriological examination of each case the proportion of prostitutes found to be suffering from gonorrhœa was increased from nine per cent. to fifty per cent.

Thus the evidence is, that in every instance where registration and inspection have been carried out, instead of decreasing prostitution and its evils, the reverse has been true—first, by increasing the number of clandestines and street-walking prostitutes, who do not come under the jurisdiction of the inspector, with no appreciable effect upon those regularly in the business; second, by increasing the number of men who frequent bawdy houses for immoral purposes, because of the apparent legalization of prostitution and the feeling of protection afforded by government, State or municipal control; third, there is an increase of venereal diseases because the inspection must necessarily be superficial and inefficient, whether under political control or otherwise; and, fourth, a further increase of venereal diseases is to be expected because of a multiplication in the number of clandestines, street-walkers, etc., by whom far the greatest amount of infection is disseminated.

The following is cited from the pen of Doctor Griffin*:

A girl, aged eighteen years, a prostitute, applied on account of a sore throat and enlarged glands on the left side of the neck. An examination of her throat showed the tonsils red and congested, with an indurated sore situated on the upper portion of the left tonsil. A vesicular syphilitic eruption made its appearance two weeks after I first saw the case. The mode of contagion was reluctantly explained. The eruption and bubo disappeared under treatment. Mucous patches afterward made their appearance in the mouth and on the vulva. Alopecia was also present.

This patient was following out her business as a prostitute while the initial lesion was in full blast,

infecting so many men a day for her breakfast, dinner, and lunch, for the simple reason that the law fails to recognize this disease and there are no statutes that can be put into force in such a case as this.

Still the law will not recognize the fact that syphilis is rampant, and confine the houses of this traffic to certain localities and make their inmates submit to examinations at certain intervals, and when they are diseased confine them to a hospital till all local lesions are cured, make them apply afterward for the space of three years every week for examination of the vagina and buccal cavity, and, if they do not so apply, make their absence punishable by a fine. Again:*

The laity—I mean by this the clergy, the politician, and the people who have not made a study of syphilis—look upon it as a venereal disease. It is not a venereal disease. Venereal disease is one produced by excess in venery. For this reason the law has been backward in framing a code that could govern these cases. We, as physicians, are compelled to report all our cases of scarlet fever, measles, and diphtheria, to the board of health; but if a prostitute, too poor to suspend her traffic while she is thus diseased, or unwilling to do so, applies to us for treatment, we can do nothing except explain to her that she is in danger of infecting every companion she sees while she is thus diseased.

An Assemblyman at Albany, now a judge, once told me there was an excellent bill up to govern the matter of prostitution. He told me the bill could not pass. In answer to my question why, he said if the Republicans voted for the bill, all the Democratic ministers in New York would say that the Republicans were trying to license vice and make the daughters of respectable men legalized prostitutes; and if the Democrats brought up such a bill, the Republicans would follow the same cry. Thus the hands of both parties are tied, under the foolish belief that prostitution can be stopped.

I know of but one way to stop prostitution, and that would take years—that is, by castrating every male child and spaying every woman; and when the human race had ceased to exist, prostitution would also succumb. But so long as man and woman are furnished with the organs of increase, so long will prostitution flourish, as it did years ago in separate parts of the city, as to-day in all parts, from the lowest tenement house to the stylish flat and brownstone houses in the best part of the city.

If the people of New York are too good to license this vice and have each and every inmate of these houses brought under the inspection of a licensed

* *New York Medical Journal*, volume lxxviii, No.

* *Ibid.*

physician at certain intervals, let them say how they are going to prevent the spread of this disease among the innocent.

Those people who are opposed to the licensing system and the confinement of these houses to certain districts are responsible in part for the spread of this disease among innocent people, who shudder at the mere name of syphilis.

These twenty cases have been seen by me during the last two years. My power of diagnosis of this disease is no better to-day than it was ten years ago, yet it took me ten years to compile the twelve initial lesions I reported in my last article, and only two years to collect these twenty cases of initial lesion. Surely syphilis is on the increase.

No one knows, except one who does this special work, how much syphilis is about. It penetrates all society. Some it infects by direct contact by connection; with others it is grafted by an innocent kiss or perhaps by a stick of candy or a tooth-brush, by grease-paint, or by drinking out of a cup. Yet the law-makers, the clergy and the people think they are doing right in not recognizing something that does exist and is liable at any moment to be inoculated into the system of an innocent baby boy or girl by the blindness of the sin, ignorance.

I believe the only possible way to limit or check venereal disease is first to educate prostitutes themselves of every class. They should be taught the inevitable dangers and responsibilities of spreading infectious diseases, and be required to critically inspect the male in each case, as to the existence of gonorrhœa, chancre, or chancroidal ulcer. If venereal disease exists in the male, it can in most instances be detected by the woman herself, and she should then refuse to submit to sexual intercourse. We must admit without argument that one reason for the general dissemination of venereal infection is that prostitutes themselves, perhaps for mercenary reasons, pay little or no attention to the matter; they are indifferent or careless as regards careful inspection of the male with whom they are to have coitus.

Then a systematic examination of all males who frequent houses of prostitution or cohabit with prostitutes might be carried out by a regularly qualified physician or officer, if by some means the males could be made to submit to such inspection, either at the houses of prostitution or elsewhere, at sufficiently frequent intervals; and if infected with any venereal disease they should be compelled to abstain from sexual congress until a cure could be effected by appropriate

treatment—should be sent to a house of detention if necessary. Venereal disease might be suppressed and possibly controlled by enforced periodical inspection of the male, and means taken when disease is detected to prevent him communicating the same to prostitutes or other femininity. Of course, this method would have but little effect upon the *evil* of prostitution itself, but it would rob it of one of its greatest terrors.

Prostitution in a certain measure seems to be a necessary evil; and since it has existed from the beginning of the civilized era, since it has been in many countries legalized, since it forms a part of many religions, we can hardly hope to completely eradicate it, but if we can mitigate the evil in any way we certainly owe the service to humanity.

With a higher enlightenment, a more elevated and comprehensive knowledge of sexual morality, a better understanding of our physiological being, hygienic and sanitary requirements, etc., prostitution may gradually diminish, and as supply is regulated by demand, as the demand is minimized the vice may correspondingly decrease and finally disappear from the face of the earth.

Louisville, Kentucky.

SPECIAL FORMS OF RECTAL FISTULÆ.*

BY WILLIAM M. BEACH, A.M., M.D.

It is generally conceded that, next to hæmorrhoids, fistulæ most frequently claim the attention of the rectal specialist. The pathology of fistula in ano is familiar to all, and the subject a trite one, but it is my purpose to direct attention only to the blind internal form with rectal orifice, and the variety that affords connection between two cavities. Two reasons obtain for presenting these: first, the frequent obscurity of symptoms and lesions; and second, the difficulty in obliterating the abnormal canal.

Many an obscure case of pelvic disease is made to stand out in clear light through skillful exploration of the rectum. On the other hand, the uterus and appendages or the posterior urethra frequently bear the onus of

*Read before the Pennsylvania State Medical Society.

some disease of the rectum, trifling or otherwise, and a failure to cure inevitably ensues.

The internal or the recto-perineal blind fistula is chiefly found in the anterior wall of the rectum, though the submucous variety may occur in any portion, and the opening (usually small) is found in a pocket just above the internal sphincter; periodically, induration may occur on the surface, which is an aid in locating the sinus that can be traced downward and forward with a bent probe. This condition is not rare, but is often overlooked.

The second form, recto-urethral or recto-vaginal fistula, is easy of diagnosis but difficult to permanently relieve—the reverse of the internal blind fistula. The subjective symptoms are certain for the most part, and leave little room for doubt in the mind of the physician.

The science of obstetrics in its evolution plays no small part as an ætiological factor. The middle of the dying century tolerated a practice of non-interference in the conduct of confinement, resulting in anterior vaginal fistulæ as the sequel to sloughing of tissues owing to prolonged pressure of the fœtus in the parturient canal. Latterly the opposite extreme has obtained, and the too frequent—not to say unskillful—applications of traction instruments produce extensive perineal lacerations, often obliterating the recto-vaginal body, with paralysis of the sphincter, and originating a recto-vaginal fistula. Lithotomy, too, is not without its danger of producing rectal fistulæ, and may be mentioned as an important factor. In thrusting the knife through the membranous urethra, the rectum may be punctured, leading to a permanent track. This accident was probably of more frequent occurrence prior to the use of anæsthetics, agents that are conducive to calm deliberation in surgical manipulation. But abscess is by far the most frequent cause of rectal fistula, and in fact most authors believe it a *sine qua non*. However peri-rectal abscess may arise, from constitutional diathesis or through traumatism, surgical or otherwise, the point of least resistance is usually toward the rectal cavity, and a blind internal fistula is the result. The following illustrative case recently came under observation:

T. S.—, aged 35, merchant, with good family history, applied for the relief of an obscure rectal trouble. There was considerable urethral irritation for which he had been treated for over a year, his medical attendant supposing it to be of gonorrhœal origin in spite of the emphatic denials of the patient. Careful questioning revealed the fact that shortly before his trouble he had fallen astride some wares in the basement of his store, the accident in a few days being followed by pain, heat, and swelling in the perineum, which suddenly subsided on the appearance of a rectal and urethral discharge, the latter the more profuse of the two. Finally another physician was consulted, who faithfully treated the supposed gonorrhœal discharge, which soon ceased. In spite of pain in back and hips and persistence of the rectal discharge, the patient was assured the rectum was healthy and the symptoms the natural result of the urethral catarrh. When he came to me he was greatly discouraged.

By aid of a speculum and an electric lamp, a thorough search was made of the lower three inches of the rectum, which revealed nothing pathological. A second examination, two weeks later, was likewise apparently futile until, when about to withdraw the speculum, pressure was made on the perineum, which forced purulent fluid through a minute orifice in the anterior wall of the gut. A bent probe entering this, the patient exclaimed, "You have touched the spot, Doctor," and immediately the instrument passed on into a larger cavity as deep as the urethra, as was subsequently demonstrated by free incision and dissection. The patient fully recovered, and all nervousness and urethral irritation disappeared.

Here, then, was a perineal abscess, the result of traumatism, that opened into both urethra and rectum, though the urethral orifice had subsequently closed. Microscopical examination had all along failed to reveal gonococci.

The next case is rare, only a few of the kind having been reported in literature. Wyeth reports one case, and to him I am indebted for the technique of the operation.

J. W.—, aged 55, cashier; when nineteen years old he was successfully relieved of a large vesical calculus by lithotomy, recovery being uneventful; but soon after, unnatural sensations convinced him of a connection between the rectum and urethra—urine passed per rectum in large amounts, and gas and fæcal

matters by the urethra. The physicians consulted denied any such condition, believing it inconsistent with his apparently good health, and so after several years of futile medication all treatment was suspended.

In October, 1895, after a lapse of twenty years, during which his condition had gradually grown worse, he consulted Doctor E. L. Neff, of Allegheny, who established the fact that a communication between the urethra and rectum really existed—this was done by injecting into the urethra several ounces of a weak solution of permanganate of potash, which fluid found its way into and escaped by the bowel. The case was then kindly referred to me, when another examination was made. The finger revealed a normal rectum, except above the sphincter anteriorly, where it passed into a deep sulcus. By passing a sound down the urethra and inserting a speculum into the rectum, it was possible, by means of a probe, readily to demonstrate a recto-urethral fistula (the urethral opening being in the membranous portion) fully one-half an inch in diameter throughout, since the finger readily passed through. A solution of hydrogen dioxide was then thrown into the urethra, and speedily appeared within the gut. The wall of the fistula was dark and callous; its rectal orifice more or less irregular. There was no doubt in the diagnosis of a large patulous track between these cavities.

November 2d, 1895, Doctors Neff and Adair assisting, an attempt was made to close the fistula. Two crescentic cuts were made about the rectal orifice of the fistula, a half-inch or so from its margin, penetrating the muscular coats of the bowel; the flaps were dissected up to within an eighth of an inch of the margin, this narrow space being considered sufficient for their nutrition; they were then turned toward each other, the rectal mucous membrane becoming the urethral floor, the raw surface being in the bowel. A line of catgut sutures was then placed, each about a quarter of an inch from the one preceding, a rubber tube left in the rectum to facilitate the escape of gas, and a silver catheter introduced into the bladder and there retained for ten days, through which this viscus was flooded with Thiersch's solution after each evacuation of urine. The wound healed promptly and kindly, and complete obliteration of the fistula seemed assured; but a few months afterward the patient complained that small quantities of urine and gas were escaping by the rectum and urethra, respectively, though only occasionally.

Since the operation no fecal matter has appeared through the urethra, and the other

abnormal phenomena are very materially modified. Examination reveals a minute orifice at the upper angle of the wound. The patient is anxious to have this closed, which we will attempt to do the coming autumn. There is no extravasation of urine, and his general health is much improved.

I may here remark that the importance of the rectal tube is not to be overlooked in any attempt to promote healing and the obliteration of fistulæ existing between rectum and urethra or vagina; the neglect of this useful device has led to many failures to wholly close recto-vaginal fistulæ, owing to infection of the wound by gas.

Pittsburgh, Pennsylvania.

ABORTION.

BY P. A. WALLING, M.D.

I propose to speak of abortion as it affects the health of woman, the happiness of the family, and the standing of the physician. I refer particularly to criminal or procured abortion, for the few cases of spontaneous or premature expulsion of the ovum cannot, from necessity, have a very great bearing on the above conditions; at the same time I employ the term in reference to any expulsion of the fœtus prior to the time when a separate existence can take place, not endeavoring to differentiate between abortion, miscarriage, and premature labor.

Procured abortion can take place any time after the moment of conception, up to the time when natural causes bring on a natural expulsion of the child or a normal-term labor. The sexes are created as they are, for the very evident purpose of perpetuation of the species, everything in the male as well as in the female sexual economy being made to exactly subserve this end. The perfect man, as well as the perfect woman, is perfect in sexual organization, and the slightest deviation from normal conditions in this respect is often immediately noted in the face or person of the individual,—beauty, freshness and vigor very soon give place to a careworn look, a wrinkled face, and an inelastic step.

Pregnancy should ordinarily begin, in the case of two healthy individuals, almost at the time of the consent of the female, and cer-

tainly at the touch of the generative organs, and anything that interferes with its full accomplishment after this time is not in keeping with the health or happiness of either sex: for example, the cutting short of the copulative act leaves unsatisfied a great amount of nervous energy, and if repeated will very soon lead to serious effects in one or both parties. The ovum immediately attaches to the point from which it afterwards gets its nourishment, and there is at once a change in condition. The sexual organs, which before were in a condition to receive, and were calling loudly for the presence of the element that should enable them to begin the support of a new life, now bend all their energies to its maintenance and preservation, and if this function be interrupted the blood-supply that is poured in for the support of the ovum becomes congestion, the uterus refusing, as it were, to believe that the gestation has been interrupted, and hence there follow congestion, heaviness, displacement and chronic inflammation in the mildest cases, and septicæmia, peritonitis and death in the more grave.

The first, or mild condition, I consider the worse of the two, for from one or more interruptions comes the habit of throwing off; the uterus fails to receive the element, and the congestion, dislocation and pain that are the direct result are soon followed by bickerings, unhappiness, and violation of the marriage contract; and a life drawn out in this condition is worse than death at the outset.

I have seen healthy young girls, married at the proper time in life, and whose organs were as perfect as any woman's could be, who, by repeated refusals to continue the pregnant condition to term, brought upon themselves endometritis, retroversion, and sterility, with all the accompanying disorders of the nervous system, jealousies and loss of domestic happiness, and who continually through the remainder of their lives were desirous of raising children and constantly regretting their folly. How much better would have been a submission to the necessary conditions and the object of marriage than to spend their lives in useless regrets! It is no more a violation of the marriage contract for a man to waste his substance away from home than for a woman to insist

upon destroying that which is the highest object of civilized life and happiness. Right here, I do not wish to be understood to defend infidelity in any man, or to say that because a woman has a miscarriage any man would be justified in seeking pleasure elsewhere than at home, for that would only make a double wrong where only one existed before; but I only wish to say by comparison that one is no worse than the other. If there is a God, he has intended a union of the sexes to perpetuate the race, and in as healthy a manner as possible, and a departure of either from the paths of virtue will surely be followed by punishment, and if He visits the iniquities of the fathers upon the children, it seems to me by comparison that the iniquities of the mothers must be visited upon the grandchildren and great-grandchildren, so far-reaching are the effects of this murderous spirit and action.

But what interests us as physicians most is the effect of procured abortion upon the man who, being a physician, allows himself to be tempted by the offer of a few dollars to carry out the scheme of the partners in this method of destroying the defenseless creatures they have brought into existence, and to which they owe support and nourishment. The law in Minnesota is quite severe (and justly so) upon the doctor who lends aid or countenance to such work. I suppose it is on the principle that the hired assassin is worse than the one who is directly interested, and should therefore be the one punished. Yet when parties who are grown and able to defend themselves are killed by hired assassins, Hayward swings and Blixt goes to the penitentiary. Generally the intent of the law-makers is good, but often after a law is once out of their hands and has been distorted by lawyers and preceded by courts, the original purpose is lost sight of, and it comes to mean something entirely different. The law is all right, but still I have heard it repeatedly stated that there was no physician who could not be induced for a comparatively small sum to "help a woman out" if she had not "come around" for two or three months. This is, I think, an unjust comment upon the profession, but it can only be refuted by universal refusal and a careful watch and prosecution of the offenders in all such cases.

In conclusion of this short and imperfect sketch of some of the inside phases of this terrible scourge upon the human race, I wish to say that it is the only legitimate result of marriage and the home to raise children; this is the only object of love, and all true love runs in this direction, and to the support and education of a family and fitting its different members for advanced life. A pleasant home, a nicely furnished house, beautiful grounds and broad acres are but adjuncts to the one central theme, the propagation of the human family or the raising of children. The Bible was written by shrewd observers of facts, and the commandments are but statements of almost universally admitted truths applied. The command "Thou shalt not kill" applies to all alike; for where or under what conditions shall we justify the taking of human life, the deprivation of the last hope on this earth? Poor or rich, we cannot tell what the infant will come to if allowed to reach maturity, and once given a creation it is nothing short of murder to destroy the creature we have created. If there ever was a woman who would have been justified in declaring she would have no more of the "squalling kids" around her, it was the mother of Abraham Lincoln, and all the world thanks the great Giver that Lincoln's mother was not that kind of a woman.

Poverty or riches, society or seclusion, new woman or old woman, no one can afford to run the risk of taking the life which she or any one else has helped to create, for sooner or later ill-health, domestic trouble or the penitentiary overtakes such persons. And nothing can prevent the execution of the sentence passed upon man by the very condition of his existence. For the same conditions that say "Thou shalt not kill" fix no limit of age outside of which a person may be destroyed, and also fix the penalty, which is immutable and everlasting.

Park Rapids, Minnesota.

IS IRON A SIMPLE ELEMENT?

In the *Chemical News*, basing his opinion on spectral rays and the effect of temperature on the spectrum, Mr. Parry ventures the assertion that this metal is not a simple element.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., OCTOBER 26th, 1896.

Editorial.

SEXUAL PHYSIOLOGY AND AGE OF CONSENT.

As the result of almost universal ignorance, a great deal of nonsense has befogged the subject of sexual physiology. Indeed, what is generally accepted as physiology by the laity—and even by the bulk of the medical profession—is but a survival of a sexual theology that retains all the crudeness peculiar to the first three centuries of our era—developed, in fact, from the oracular utterances of hermits, monks, and other religious ascetics, including the "Fathers," all of whose writings prove them to have been neither very learned or very critical men. Succeeding centuries, instead of adding knowledge, have served only to wrap the subject more closely in the dark mantle of superstition. "Public opinion," as regards this matter, is only the offshoot, more or less direct, of theology, or the crude vapoing of ignorance; and thus two factors, primarily of like derivation, dominate sexual physiology to such a degree that few have had the courage to seek the truth, still less to proclaim it when found. What, then, can be expected when even the study of this subject brings little from the public but anathemas and denunciations, and from the pulpit the statement that such honest efforts are attempts to "render vice respectable"? The courts, too, offer little aid, being in turn dominated by "precedents" which carry the question back to the obscurities and ignorance of ecclesiastical law. Thus the great social evil, prostitution, is fostered by the very means that ostensibly are intended to oppose it.

Laying aside all æsthetics, all ecclesiastical teaching and legal precedent, and appealing solely to physiology, it is speedily discovered the congress of the sexes is the chief aim of all life, to the end of reproduction of the species; that when the reproductive powers wane, simultaneously all the vital powers, mental and physical, likewise dwindle—the acme of the procreative power always, without a single exception, represents the fastigium of vitality. The pursuit of the female, then, is in accordance with Nature's greatest scheme, which implanted the sexual as the most powerful of all passions, the one hardest to overcome, and one that, wrought up to its highest pitch, may become a frenzy practically irresistible. Unfortunately for modern reformers, Nature at the very outset failed to take into consideration the artificial conditions of life known as civilization, or the possible attempts to modify her laws in consonance with the whims or beliefs of ecclesiastics and that weakling human animal that egotistically arrogates to himself privileges greater than those of Divinity.

For a calm and dispassionate consideration of sexuality these facts must not be lost sight of, and all religious or social bias must be carefully put aside; at the same time, cannot be ignored the changed conditions that obtain as the result of acts of previous generations; and must also be realized, that radicalism is ever tantamount to failure, and that existing laws cannot be rudely cast aside or public opinion remodeled by one great swoop. The question, then, is, how to render the present enactments and customs subservient to the greatest good, and thereby secure the maximum of equity and justice to all.

As already remarked, the pursuit of the female is in accordance with the highest of Nature's laws, whether witnessed in animal or vegetable life, or that portion of the former that dubs itself "humanity." Second to this is the right of the female to select, to accept and to deny.—All this is patent to every conscientious student of physiology and natural history. But in so far as humanity is concerned, especially under the domain of so-called Christianity, theology steps in and claims the privilege of throwing certain safeguards, so termed, around the

one (female) sex, to the total exclusion and often material detriment of the other. This same theology, while recognizing sexual passion in the male, arbitrarily denies such to the other sex, and insists that the woman must, under all conditions and surroundings, repress any leanings or longings—a teaching that is responsible for the divorces that have broken up myriads of homes, ostracised the members of households, and driven many of both sexes to desperation; it has led to a false so-called modesty, forcing women to suffer in silence the pangs of fell disease; it has hopelessly ruined young children; it has filled brothels with fair daughters, and made *roués* of noble sons; and all, forsooth, because the sexual organs are "unclean" and unfit to be mentioned, exposed, thought of, or considered in any way. Thus this pernicious modesty has become so general as to be damnable in its effect alike upon youth, adolescence, middle age, and senility, though in the latter, it will be generally observed, it is apt to suffer considerable lapse. So, too, sexual theology teaches that the woman who yields herself to the dictates of an inherent, all-powerful, naturally implanted passion, is necessarily at all times the victim of some designing member of the other sex; and even if she submits thereto within the sacredness of the marital couch, in any manner except passively and abhorrently, she must necessarily, forsooth, be morally debased.

But is it a fact that woman is weaker than man, or is it merely a fiction originally conceived in an attempt to render the entire human race ascetic as a means of reaching religious "perfection"—for ecclesiastical history evidences that the repression of sexualism was held the means of procuring that diseased mental state generally denominated ecstatic and clairvoyant, whereby it was considered the soul was "brought closer to" or "united with" God. (*Vide* the writings of the "Fathers!") Physiology most certainly does not affirm the existence of such a radical difference, and woman herself denies it when she seeks to be placed upon a par with man in all the walks of life. On the contrary, the evidence shows, as a rule, that the woman is in mental strength the superior of man; that she bears torture and pain in a greater degree; that her will-power is quicker

and more potent; her intuition finer, much more acute and active; and last, but not least, that her mental resistance and control are more perfectly developed, all things being equal.—Her own sex proudly assert this on all occasions, except perhaps when some unfortunate male is to be made a scapegoat. Laying aside (for the present), then, the questionable crime of rape, the assumed differences between the sexes are not inherent and do not normally exist, to either the advantage or disadvantage of the so-called weaker sex. If women, by their own volition or by the acts of parents and guardians, are placed in questionable positions and relations toward the other sex, their undoing should be upon their own shoulders. Where pursuit and persuasion are difficult or impossible, there is little to be feared, and illicit intercourse is placed at a minimum. But is it a crime? Nature does not recognize it as such—only ecclesiasticism and the brood of artificialities that it has engrafted upon jurisprudence. Now is arrived at, even under the latter, the real criminal factor, namely, the usage of society which common consent permits, and which selects and places the female in positions that necessarily, openly and boldly, regardless of desire, lure the male; in situations wherein the latter is offered every opportunity and convenience for pursuit; and then, having done this, society paradoxically proceeds to hold up its hands in holy horror and loudly denounce the results that accrue to inspirations that proceed from a natural law. And a nice mess society has made of it by forcing the female to tempt the male and to tempt herself, and then, because she obeys the dictates of a law higher than that of man, and higher than the crude and artificial conventionalities, she must needs be ostracised. More than all this, the same society, while punishing the one sex, imposes no penalty upon the other for the same precise crime, but on the contrary rather flatters and fetes the co-criminal than otherwise. Thus society and ecclesiasticism stultify their own acts and offer conclusive evidence that the contention is right that, in a majority of instances, the seducer and seduced, if anything, should exchange places. Greater than all jurisprudence is that profound law of Nature which rests the privilege

of selection with the female alone. Thus all attempts at reformation begin at the wrong end of the problem, which may be solved only by an appeal to rational physiology—by better domestic life; better care in youth and adolescence; proper sexual education; the suppression of the sensational and daily press within the family, and a more careful selection of other literature—in fact, healthy minds in sound bodies, and an inculcation of morality that will neither permit the female to offer herself too cheaply, or the male to too eagerly pursue, the one being complementary to the other. A wrong in which both participate must in equity entail an equal guilt on the part of each.

This naturally brings up the question of the legal status of the two sexes, as at present made manifest in the courts, and as interpreted by ages of superstitious ecclesiasticism. There are certain organizations, especially among women, that are continually agitating the raising of the "age of consent," which is no sooner advanced a couple of years than a new agitation is set on foot for another like extension. These people—largely short-haired women, aided and abetted by the long-haired men—are notoriously made up of individuals illy balanced mentally, each imbued with a self-developed "mission;" many of them are individuals who, because of physical infirmities, are denied sexual relief; others are entirely devoid of sexuality; and a large portion come under the head of sexual perverts, who seek to hide their true character by means of a garb of rigid, unswerving chastity quite foreign to their real sentiments—these extremists, as Balzac says, are "angry with God for giving them nuts without teeth to crack them." Alienists well know the first evidence of paranoia in the female is a "mission" to reform the entire world on "certain lines," regardless of the laws of Nature or needs of man. These people, in their zeal to protect "innocent womanhood," relentlessly crush beneath the despotic and iron heel of bigotry and dishonesty the "soiled dove," while they at the same time socially court and tolerate her paramour, even in the midst of their denunciations of him. Their zeal in persecuting the male sex is ephemeral, and that only of the pack which takes its cry from the leading

hound in pursuit of the quarry; it is chiefly exhibited when some one falls into the meshes of the law, when with great unanimity these reformers pack court-rooms in attempts to influence the jury or to enlist the press toward conviction before trial, so little regard have they for the privileges of equity or the majesty of jurisprudence. It was but recently that in a Western city a man was convicted by the efforts of these people, abetted by the public press and aided by the police, of a crime that perhaps was never committed—of an act, in fact, to which the woman had yielded time and again, and she up to the very moment of trial held illicit relations with one who disappeared lest he be brought into the witness box. That the person convicted was a paranoiac, was most patent; that he deserved to be taken from the ranks of society which he daily outraged, no one presumes to deny; but the semblance of justice was lost in that he was branded and convicted before trial by the efforts of the so-called reformers, aided by the press and others; then a second time convicted in court—as already said—of a particular crime of which he was legally innocent.

(To be continued.)

ANCIENT REMEDIES.

When we look back upon the strange, fanciful and wondrous prescriptions that in mediæval and even later times were recommended for most diseases, we are apt to hold that our progenitors were most astonishingly ignorant. In the matter of blood-poisoning, for instance, the remedies were of a class that have fairly aroused the derision of modern science. Thus, the dried liver of a boar, drunk in wine, was esteemed very efficacious, while the liver of the hyena offered a most excellent succedaneum; a still more sovereign remedy was the liver of a young puppy. The fat of a seal mixed with the marrow of a hyena was prescribed both *per ore* and as an inunction. The tail of a field mouse burnt and powdered was supposed to possess extraordinary virtue in the healing of wounds, but if cut off while the mouse was alive it was esteemed entirely devoid of virtue. Unicorn's horn—whatever

that may be—was a precious remedy, highly esteemed as an alexipharmic; it was sovereign for “hydrophobia,” but accompanied by the very satisfactory information that the “genuine article” was difficult to secure, inasmuch as there were a variety of imitations. The wool of a sheep undressed would, it was believed, when applied to a wound heal it between Monday morning and Saturday night—this is not so far away from some present ideas, since mutton suet is highly esteemed in domestic practice, and lanolin is a legitimate pharmaceutical product. The gall of a bear steeped in water was another excellent remedy for rabies, but it was necessary that the patient should fast for three days before taking this savory potion, which fact unfortunately offset its virtues. A snake's skin and a male crab pounded together survived even to the latter part of the last century. Young swallows burnt and beaten to powder; the hairs of a dog laid upon the wound—we wonder if this is the origin of the old aphorism; the roots of dog roses; the tongue of a ram with salt; green figs soaked in vinegar; and amulets,—all were deemed highly efficacious. The wearing of the skin of a hyena or young wolf in which root of gentian had been enclosed was another sovereign remedy; so too was the tooth of a dog fastened in a leaf and tied around the patient's arm.

A tale is told of some priests attached to St. Lambert's church in the city of Picardy who undertook to cure “canine madness” in man or beast after a very original manner. When the sufferer was brought before them, a cross was cut in his forehead; then a piece of the Saint's robe—doubtless they possessed the entire wardrobe—was laid upon the part that had been bitten, sewed up within the wound, and the whole covered by a plaster; and now the victim was put upon a diet of hard-boiled eggs and water. If he failed to recover within the space of forty days, he was deemed incorrigible, and now, if of the human species, they bound him hand and foot to a couch and smothered beneath a bed of feathers. One heroic remedy for the same malady dating back to the time of Pliny, was to salt the flesh of a mad dog and devour it, or the head of the dog powdered was even better—the “hair of a

dog" again, evidently. Cheese from goats' milk, mixed with wild marjoram, was sometimes prescribed. Another common practice was to plunge the patient into cold water—water of the ocean if possible; and one girl who was supposed to be suffering from the malady was repeatedly plunged into a tub of water to which a bushel of salt had been added, then left in the bath propped up against the side; it is pleasant to remember that when she regained her senses she was able not only to look upon the water, but even to taste it, a fact of which great capital was made.

Whether nineteenth-century medicine will appear in any better light six hundred years hence is doubtful. Will the prescribing of desiccated kidneys or thyroid be deemed any advance over the dried liver of a boar, hyena, or young puppy? Why should cod-liver oil and pituitary gland be esteemed of more remedial value than the fat of a seal mixed with the marrow of a hyena—the sole difference appears to be that something is known of the virtues of cod-liver oil, while as to seal fat and hyena marrow we can only say the Innuits and Hottentots respectively seem to find each an excellent carbohydrate. In these days of nostrums, too, unicorn's horn might possibly be revived with benefit; and while the tail of a mouse might not be altogether applicable, we feel sure that the skin of a hyena or young wolf would prove as efficacious in pneumonia as that of a black cat, which we understand is a domestic remedy still in vogue and in high repute among certain irregular practitioners in civilized Kansas and Missouri.

THE BEST SALT OF QUININE.

This, according to S. Solis-Cohen, is the double hydrochlorate with urea; it is always to be preferred in the treatment of malarial affections. It may be used once daily hypodermatically, in doses of fifteen grains, dissolved in from twenty to thirty minims of pure water, and deeply and carefully injected; or by the mouth fifteen grains night and morning, which is ordinarily the maximum dosage for the adult. If special conditions call for increased dosage, it may be used with due caution.

Items and News.

Empirical Therapeutics.—

We smile at the popular herbal remedies. But it is to these that we owe the majority of our most useful drugs. I cannot conceive a therapist surveying a list of the chief drugs on which we depend in our daily work—and do not depend in vain—without a sense of wonder and perhaps of humiliation. We dis-infect our rooms with burning sulphur; and so men did before the time of Homer. We purge sometimes with rhubarb, especially when some subsequent astringent influence is desirable; and so did the old Arabians for the same special reason. The value of castor oil in its chief use was familiar, probably for ages, to the natives of the East and of the West Indies before it was made known in Europe by a physician from Antigua one hundred and fifty years ago. Aloes was employed in the same way long before the time of Dioscorides and Pliny. The knowledge of the influence of ergot in parturition we owe to the peasants of Germany, and the use of male fern for tapeworm goes back to the old Greeks and Romans. The employment of mercury in syphilis by inunction and fumigation, which our nineteenth-century therapists regard with such satisfaction, seems to go back to the time of the Crusades, and it is said that its use can be traced in Malabar as far back as the ninth century. Podophyllum as a purgative we owe to the North American Indians. If we go through the list of all the drugs on which we most rely, we find a similar story. Even in the case of those which are the latest additions to our resources, we find that, with very few exceptions, their use arose from what we must regard as pure empiricism. It was by accident that the local anæsthetic influence of cocaine was discovered.—GOWERS, in *Medical Press and Circular*.

Can a Frozen Animal be Restored to Life?—

If the animal is slowly frozen and as slowly thawed out, life may be restored. If the freezing takes place at -5° C., the temperature then remaining at -2° C., there cannot be an aggravation of the condition. The temperature must be gradually raised, otherwise a fatal result will follow. The old plan, so prevalent in cold regions, of thawing out a frozen member of the body by rubbing with snow, before coming into a warm room, is based on scientific principles. Death follows at once if *all* the water contained in the body be crystallized. Complete congelation of the water of the body tissues signifies com-

plete drying, separation of all the soluble and loosely chemically united gases, as well as crystallization of the salts. As a result of this, the structure of the protoplasm, as well as its chemical and physical characters, is necessarily destroyed. Death follows as the result of this separation of the living substance, and not as a consequence of great reduction of temperature. Water containing leeches can be lowered to -4.5° C. without the formation of ice within the tissues of these animals. Only when crystallization of the water surrounding the animals occurs, and extends into their richly watery tissues, do they die.

Animals whose tissues are rich in water may be frozen to stony hardness, but, as shown by macroscopic and microscopic examination, a sluggish, movable fluid may be seen coursing among the ice needles. Too long a time must not follow freezing before the efforts to restore life commence.—*Medical and Surgical Reporter*.

The People of the World.—

The seventy-two races inhabiting the world communicate with each other in 3004 different tongues, and confess to about 1000 religions. The sexes are very nearly equal in numbers, and the average longevity of both is only thirty-eight years, about one-third of the population dying before the age of seventeen. Moreover, according to the most careful computation, only one person in 100,000 of both sexes attains the age of 100 years, and only six to seven in one hundred the age of sixty.

The total population of the earth is estimated at 1,200,000,000 souls, of whom 32,214,000 die annually—*i. e.*, 988,048 a day, 4020 an hour, and 67 a minute. The annual number of births, on the other hand, is estimated at 36,792,000—*i. e.*, an average of 100,300 a day, 4200 an hour, 70 a minute.

Generally, taking the entire world, married people live longer than single, and those who have to work hard for a living longer than those who do not, while also the average rate of longevity is higher among civilized than among uncivilized races. Further, people of large physique live longer than those of small, but those of middle size beat both.—*Medical Record*.

Surgical Literature.—

With the development of our country, small hospitals have been built in many of the towns, and much surgical work is being done therein. There is a large amount of trashy literature circulated among the members of the profession, and this literature, unfortu-

nately, influences those who read it. With a hospital in which to operate, with a diminished mortality incident to the adoption of aseptic surgery, and with trashy literature to recommend unwise operations, there is a danger that surgery may do too much. Unless one is behind the scenes and knows something of the standing of a writer in his own community, he is liable to accept much that is written as truth and the outcome of a large experience, whereas the information of the would-be authority is in reality culled from books and his own imagination. Many of the deductions found in papers printed are not to be relied upon, and unfortunately the journals cannot be held responsible for this fact. Frequently a superstructure is built without a foundation, or, if there is a foundation, it is entirely in the imagination of the writer.—*Exchange*.

A Defect in Medical Schools.—

The Kitson-Playfair case, and all the controversy it has aroused, bring into prominence one marked defect in medical education and professional capacity. Of all the professions the medical is brought into the most intimate contact with delicate and embarrassing situations. Yet the medical student, alone among young professional men, is never during the whole of his curriculum offered any definite instructions in the art and practice of professional business and professional conduct. Chairs of ethics, or at least one general lectureship, should be established, and attendance upon a course of ethical lectures, however limited, should be compulsory upon every medical student before passing his final examination.—*The Hospital*.

Newspaper Rabies.—

Inductions from bibliographical references, experimental research, and clinical experience, seem to warrant the following conclusions:

That the notion of a toxic rabic bite is an old one, being mentioned by Homer, but not by Hippocrates: But few physicians have seen a genuine case of this badly elucidated symptom-complex known as hydrophobia: Among competent surgeons and neurologists there exists a wide difference of opinion, and even irreconcilable diversity, as to the existence of genuine hydrophobia in man: Concerning the exact value of the Pasteur method there is also considerable diversity of opinion, if not preponderant evidence of an adverse nature: And there is a difference of opinion as to whether pseudo-hydrophobia ever produces death.—ROSSE, in *Maryland Medical Journal*.

Not Much of a Scholar.—

Helen: "The professor is such a learned man! I understand he speaks no less than ten languages."

Aunt Maria: "And what does that amount to? I saw him try to stop a car by whistling on his fingers, and do you know he couldn't do it! Talk about learning!"—*Youth's Companion*.

Strong Sense.—

It is neither conducive to accuracy of pharmacological research, nor yet of treatment, that we should work with bodies whose constitution is not understood, and which may contain principles divergent or even antagonistic in their action.—PROFESSOR CASH, in *British Medical Journal*.

Large Spiders.—

Spiders are met with in the forests of Java whose webs are so strong that it requires a knife to cut through them. A spider weighing four pounds, which has taken up her residence in a cathedral at Munich, regales herself with a large supply of lamp-oil.—*Popular Science Monthly*.

Care of Instruments.—

A borax solution will prevent the accumulation of rust on surgical instruments such as bistouries, scissors, needles, and forceps. They may be allowed to remain in a two-per-cent. solution even for a year or two, and when withdrawn will be found to be perfectly intact.—MARECHAL.

Fraudulent Quinine.—

We are in receipt of a paper from Professor Wm. A. Puckner, but too late for publication in this issue, announcing that there has appeared on the market a so-called tasteless quinine, called "flora quinine," which he finds to be gypsum, calcium sulphate.—*Western Druggist*.

Very Likely!—

"Hadn't you better call another physician," said the wife to the young doctor who was treating her husband; "just for consultation, you know?"

"No, Ma'am," replied the medico, "my ideas are confused enough already."—*Buffalo Times*.

Helium and Argon Non-valent.—

Professor Ramsey, after a series of exhaustive experiments, reports there is every reason to believe that the elements helium and argon are non-valent—that is, are incapable of forming compounds.

Book Reviews.

LIFE AND LETTERS OF OLIVER WENDELL HOLMES. By John T. Morse, Jun. Two volumes. Cloth; 12mo; pp. 358 and 355. Houghton, Mifflin & Co. The Riverside Press, Boston and New York.

Anything connected with the life and history of Doctor Holmes cannot fail to be interesting. The letters are comparatively few, since the subject had an abhorrence of the drudgery entailed by correspondence; such as they are, however, they are extremely interesting and give an insight into the life of America's greatest poet and *littérateur*. The chapters of the first volume deal with "Genealogy and Birth;" "Autobiographical Notes;" "Letters to Phineas Barnes (1826-31);" "Education at Home and Abroad;" "Letters from Europe;" "Marriage and Medical Practice;" "Lectures, Medical and Literary;" "The Atlantic and The Autocrat;" "Poetry, The Saturday Club, The Professor, and The Poet;" "Novels and Religious Teachings;" "Distaste for Public Affairs;" "The Victim of Correspondence."

The second volume deals with "Occupations and Methods of Work;" "His Resignation of Professorship;" "Lives of Motley and Emerson;" "European Trip and Old Age;" "Death, and Letters to Various Personages," including Lowell, Kimball, Motley, Harriet Beecher Stowe, and Elizabeth Stuart Phelps; and "Miscellaneous."

A proper review of these volumes would require a book of itself. The author has done his work well, and from the initial chapter to finis keeps us in close contact with Professor Holmes. This is a work which cannot but delight every medical man, and will be no less interesting to the laity.

VETERINARY HOMŒOPATHY IN ITS APPLICATION TO THE HORSE. By John Sutcliffe Hurndall. Cloth; 8vo; pp. 343. Price, \$2.00. Boericke & Tafel, Philadelphia.

That this will be considered a work of considerable value to homœopaths, goes without saying; and that it may also prove an efficient aid to other veterinary medical men, is apparent from the fact that the author is a well known veterinarian of Great Britain, and a member of the Royal College of Veterinary Surgeons.

Space will not allow us to more than note the sections into which the book is divided. First comes "Hygiene and Sanitation," followed by "Diagnosis," "Strength and Dose of Drugs," and "Arrangement of Diseases." The different maladies are then taken up under the caption of "General Diseases;" "Blood Poisoning;" "Diseases of Parts and Organs included in the Respiratory Tract;" "Diseases of the Circulatory System;" of the "Digestive System"—which is more than ordinarily full; of the "Liver;" of the "Urinary and Generative Organs;" "Parturition;" "The Nervous System;" "Lameness;" "Sprains of the Tendons, Ligaments, and Muscles;" "Diseases of the Eye;"

"Occasional Diseases of the Skin;" "Internal Parasites;" "Inflammation;" "Code of Common Suggestive Symptoms."

Finally, there is a very thorough and comprehensive index.

AN AMERICAN TEXT-BOOK OF PHYSIOLOGY. Edited by William H. Howell, Ph.D., M.D. Cloth; imperial 8vo; pp. 1052. Price, \$6.00. W. B. Saunders, Philadelphia.

We believe this is the first time an elementary text-book on physiology has been produced by collaboration of several teachers. The first, third, fourth, fifth and sixth chapters comprise respectively the "Introduction," a dissertation on "Secretion," "Chemistry of Digestion and Nutrition," "Movements of the Alimentary Canal, Bladder, and Ureter," and "Blood and Lymph," by the Editor. "General Physiology of Muscle and Nerve" is by Warren P. Lombard; "Respiration and Normal Heat," by Edward T. Reichart; "The Central Nervous System," by Henry H. Donaldson; "Special Senses," by H. P. Bowditch and Henry Sewall; "Physiology of Special Muscular Mechanisms," by William P. Lombard and Henry Sewall; "Reproduction," by Frederick S. Lee; "The Chemistry of the Animal Body," by Graham Trusk. The volume will prove an especially valuable addition to the physiological library.

A TREATISE ON OBSTETRICS. By Edward P. Davis, A.M., M.D. Cloth; 8vo; pp. 553. Price, \$5.00. Lea Brothers & Co., Philadelphia.

This work affords to students and practitioners a concise yet comprehensive guide to the art of obstetrics in its most modern development. A marked and attractive feature is found in the exceptionally rich series of engravings, among them being a large number of photographic reproductions of obstetrical scenes carefully selected; there are likewise a number of instructive colored plates. In scope it is more comprehensive than ordinary treatises, as it deals with cognate subjects best handled in close connection with their obstetrical antecedents, such as the repair of lacerations and injuries, the care of the mother and of the infant, jurisprudence of midwifery, etc.

A MANUAL OF PHARMACOLOGY AND THERAPEUTICS. By William Murrell, M.D., F.R.C.P., and Frederick A. Castle, M.D. Cloth; 8vo; pp. 516. William Wood & Co., New York.

Any work from the pen of Doctor William Murrell must command attention, inasmuch as pharmacology has recently attained great importance in the medical curriculum. This volume, which is an abstract of lectures delivered at Westminster Hospital, London, is not only adapted to the full-fledged medical man, but will also prove indispensable to the student preparing for examination. The therapeutics has been treated carefully, and

the large number of prescriptions throughout the volume will aid in rendering it doubly welcome to the modern practitioner.

THE PRICE HE PAID. By E. Werner. Paper; 16mo; pp. 307. Price, 25 cents. Rand, McNally & Co., Chicago.

A most interesting bit of fiction dealing with German politics, revolution, and love. The strongest figure is that of young Doctor Brunnow, who, pretendedly a misanthrope with a desire for permanent bachelorhood, falls deeply in love with a delightful lassie whose original intent was to take the black veil. As a whole the volume is a very interesting and readable one.

FEEDING IN EARLY INFANCY. By Arthur V. Meigs, M.D. Flexible; 8vo; pp. 15. Price, 25 cents. W. B. Saunders, Philadelphia.

This book is worthy of careful perusal.

LITTELL'S LIVING AGE. Price, 20 cents; \$6.00 per year. The Living Age Co., Boston.

The publishers announce certain new features which will greatly enhance the value of this weekly in the eyes of every intelligent reader. The first will appear in November—to be continued monthly thereafter—in the form of a supplement containing three departments, namely: Readings from American Magazines, Readings from New Books, and a List of the Books of the Month. This "supplement" cannot fail to be of great interest and profit to subscribers, as it means an increase of about *three hundred pages* annually, without additional price. The *Living Age* will further include, hereafter, noteworthy translations from French, German, Spanish, and Italian journals. With these improvements, and its price reduced from \$8.00 to \$6.00 per year, this magazine must become more popular than ever. Certainly no family or individual who desires to be acquainted with the best literature of the day in all its various departments—biography, history, science, art, politics, poetry, and fiction—can afford to be without it. A generous offer to new subscribers for 1897 is made, of all the weekly issues of 1896 published after the receipt of subscriptions.

THE AUK. Price, 75 cents; \$3.00 per year. L. S. Foster, New York.

The frontispiece in the October issue of this quarterly journal of ornithology represents Nelson's and the Acadian Sparrow. "The Sharp-tailed Sparrow (*Ammodramus candacutus*) and Its Geographical Races" is by Jonathan Dwight, Jr.; "Summer Birds of the Anthracite Coal Regions of Pennsylvania," by R. T. Young; "Feeding Habits of the English Sparrow and Crow," by S. D. Judd; "Summer Birds of Northern Elk County, Pennsylvania," by W. L. Bailey; "Summer Birds of the Rhine," by Ralph Hoffmann; "The Cormorant Rookeries of the Lofoten Islands," by R. W. Shufeldt, M.D.; "Critical Remarks on the Mexican Forms of the Genus *Certhia*," by H. C. Oberholser; "Further Remarks on the Law which Underlies Protective Coloration," by A. H. Thayer; "Evi-

dence Suggestive of the Occurrence of Individual Dichromatism in *Megascops asio*," by A. P. Chadbourn, M.D. "Recent Literature," "General Notes," and "Notes and News" complete the number.

McCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The November issue contains an entertaining paper on "The Development of Daguerreotyping in America," by Mrs. D. T. Davis; Ethel M. McKenna writes of "Alma-Tadema and His Studio;" the opening installment of Rudyard Kipling's story of "American Life" here appears. The other fiction of the number embraces a clever story of a loss and recovery of diamonds, with incidental detective exploits; a Thanksgiving love story; and two charming dialogues by Anthony Hope. Then there is one of Cy Warman's true railroad stories. Elizabeth Stuart Phelps continues her reminiscences. Miss Tarbell contributes another most interesting paper—an account of Lincoln's nomination to the Presidency in 1860.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

The issue for October contains: "Dinichthys Prentis-Clarki," by E. W. Claypole; "The Fort Union Formation," by W. H. Weed; "Volcanic Ash from the North Shore of Lake Superior," by N. H. Winchell and U. S. Grant; "Buffalo Meetings of the Geological Society and American Association," by Warren Upham; "The 'Augen'-Gneiss Area, Pegmatite Veins and Diorite Dikes at Bedford, New York," by L. McL. Luquer and H. Ries; "A New and Important Source of Phosphate Rock in Tennessee," by J. M. Safford; "Review of Recent Geological Literature;" "Personal and Scientific News."

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston.

The November number opens with an article entitled "Causes of Agricultural Unrest," by J. L. Laughlin; "Cheerful Yesterdays" is by T. W. Higginson; "The Juggler," by Charles Egbert Caddock; "Utah as an Industrial Object-Lesson," by W. E. Smythe; "Marm Lisa" (XI-XVI), by Kate Douglas Wiggin; "Dust," by Lafcadio Hearn; "A Night and a Day in Spain," by Miriam C. Harris; "Stone-Lonesome," by C. G. D. Roberts; "Early Recollections of Bret Harte," by C. W. Stoddard; "Trade Unions in the United Kingdom," by J. M. Ludlow; "Out of the Book of Humanity," by J. A. Riis; and the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

In the November number Rufus R. Wilson writes of "Conducting a National Campaign." "We" is by Frank C. Bray; "In Quaint Old Zoar" describes an Ohio settlement; "Franklin the Politician and the Statesman" is by Mr. Lay; Cassius M. Clay, Fred. Grant, Charles A. Dana, Mary A. Livermore, Phebe A. Hanaford, Eliza A. Conner and Mrs. Croly express opinions on the claims of Anna Ella Carroll of having planned the Tennessee campaign in the Civil War. The fiction includes excellent stories by Henry Austin and Martha McC. Williams.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

The October number contains: "Fresh Relics of Glacial Man Reported at the Buffalo Meeting of the A. A. A. S.," by G. F. Wright; "Relative Efficiency of Animals as Machines," by Manly Miles; "The Bacterial Diseases of Plants: A Critical Review of the Present State of Our Knowledge" (continued), by E. F. Smith; "Editor's Table;" "Recent Books and Pamphlets;" General Notes on Mineralogy and Crystallography, Petrography, Geology and Palæontology, Botany, Zoology, Entomology, Psychology, Microscopy; Proceedings of Scientific Societies; and Scientific News.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The October 17th issue contains: "Illicit Commissions;" "Need of a New Register's Office;" "Editorial Notes and Comments;" "A Study of the Heating and Ventilating Plants in the Suffolk County Court House and the Massachusetts State House, Boston;" "Safe Spans for Wooden Floor Joists and Rafters in Buildings;" "In Streets and Papers;" "Forest Wealth of Brazil;" "Civil Service Examinations;" "Obituary;" "An Ingenious Way of Straightening a Chimney Stack;" "A Great French Lighthouse;" "Drawings for the Paris Prize;" "Correspondence;" "Societies;" "Current Notes;" "A Mexican Contract."

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

Contents for October: "The Pheasants," by A. I. Shand; "The Only Game," by J. F. Sullivan; "Cycling Gymkhanas," by A. R. B. Munro; "In Rajputana," by Colonel G. H. Trevor; "Games of the Far East," by Professor Church; "A Day with the Staintondale Fox-Hounds," by Russell Richardson; "The American Quail," by A. G. Bradley; "Marine Golf," by Eden Phillpotts; "Cricket," by A. C. Maclaren; "Nil Desperandum," by A. Gathorne Hardy; "Notes by 'Rapiet.'" The illustrations are by A. Thorburn, J. F. Sullivan, G. H. Jalland, John Beer, F. S. Wilson, and E. F. T. Bennett.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the November issue is "An Interrupted Current," by Howard M. Yost; "The Land of the Five Tribes" is by Allan Hendricks; "Modern Ancestors and Armorial Bearings," by A. S. Von Westrum; "Journalism that Pays," by L. Armstrong; "The Sixth Sense," by James Weir, Jr.; "Some English Traits," by A. F. Sanborn; "Simon Smith," by W. R. Mackay; "Florida Snakes," by R. G. Robinson. There is the usual quota of verse by well known writers.

THE AMERICAN ANTHROPOLOGIST. Price, 20 cents; \$2.00 per year. Anthropological Society of Washington.

Contents for October: "The Bunan Ceremony of New South Wales," by R. H. Mathews; "Pueblo Indian Clans," by F. W. Hodge; "Obituary of George Brown Goode," by O. T. Mason; "Notes and News;" "Monthly Bibliography of Anthropologic Literature."

Therapeutic Brevities.

Hæmorrhoids.—Many people permit themselves to suffer intensely from piles, owing to the belief that such are incurable except by a radical operation. If they are internal, and the tumors very large, they certainly are hard to relieve except by surgical measures in the hands of an experienced operator; but if external, they are often readily amenable to treatment.

Piles are often associated with, and often produced by, constipation. If they protrude in bunches, a one-minim dose of tincture of aloes given an hour before meals relieves; at the same time the constipation must be combated. When the tumor can be reached, Monsell's salt in solution (one drachm to two ounces of water) should be carefully applied. Where there is constipation with hæmorrhoids, collinsonia is a valuable remedy given internally in doses of one to three minims; this drug is also applicable in chronic proctitis and rectitis, and is a safe remedy in hypertrophy and dilatation of the heart, as it has direct effect upon muscular fibre, contracting it, and thus is able to give tone to the coats of the veins.

When the foregoing fail, resort may be had to horse chestnut, which is especially indicated where there is a dry condition of rectum with a sensation of sticks therein, a purple color of the mucous coat, a burning sensation after stools, and back-ache. *Æsculus glabra* (Ohio buckeye) is more active than horse chestnut, but must be employed as tincture of the ripe nut and in small doses.

Hamamelis is indicated where there is great soreness of the rectum, also where there is much hæmorrhage of internal piles, especially in pregnant women.

If there is portal congestion and chronic hepatitis, podophyllum is indicated, as it not only has specific affinity for the rectum but acts on the liver. It may be alternated with aloes or collinsonia, but must be given in small doses of the tincture, say one minim.

Many physicians have tried the above remedies, but they have followed the old plan of giving large doses, which fail of curative but secure the toxic effects. There are very few remedies, if any, which induce the dynamic and toxic effects with the same sized dose. The two effects are usually opposite.—I. J. M. Goss, in *Eclectic Medical Journal*.

Ipecac.—Ipecac is a vaso-motor stimulant in proper doses. The pure root, powdered, in half-grain doses, raises blood-pressure and

causes constriction of the systemic arterioles and capillaries, especially of the mucous membranes. It is a noted remedy in catarrh of the stomach, of large and small intestines, of the bronchial tract, and probably of the bile-ducts. This vaso-motor property of the medicament is noted in relieving headaches of the congestive kind, also those that arise from catarrh of the gastro-intestinal mucous membranes and the peculiar condition known as "biliousness." It is a remarkable medicament in all these catarrhal states, and I may here observe that much of the hepatic congestion and engorgement and biliousness are closely related to gastro-intestinal catarrh. No single remedy, administered with skill, is capable of accomplishing so much good results in all these conditions as ipecac. Rutherford's experiments prove that ipecac is a marked hepatic stimulant; he classed it high as a cholagogue—a liver tonic,—that is, it stimulates the liver cells to performance of their physiological function, the secretion of bile and depuration. Possibly ipecac has more or less influence over the glycogenic function of the liver; cases are numerous of glycosuria in which small doses of ipecac have reduced the daily excretion of sugar; some have been cured by it. Considered as an alterative—using the term in a special sense as indicating control over glandular function—ipecac has a decided influence over the processes of nutrition. It controls blood-supply, and affects nutritive processes in virtue of its influence on glandular function and on blood-supply, either of which is more or less related to central vaso-motor function. It renders mucous membrane anæmic when in a catarrhal or hyperæmic condition—this property it shares with ammonium muriate, and thus is explained how these two drugs in combination prove so valuable in catarrhal conditions of the bronchial tract and in so-called "biliousness." Ipecac is emphatically a tonic to mucous membranes and to glandular cells. Its good action in dyspepsia is proverbial.—JOSEPH ADOLPHUS.

Operating in Chronic Glaucoma.—It is right to operate at any stage of the disease, so long as there is any sight worth saving, provided the patient's general condition does not forbid, and he or his friends have been given clearly to understand that the operation is the only means, but not a *certain* means, of avoiding blindness.

The immediate safety of the eye, as regards the operation, depends chiefly on the avoidance of injury or displacement of the lens and deep-seated hæmorrhage. The

making of a scleral puncture, so as to slacken the eye, immediately before the iridectomy, is a valuable safeguard against injury of the lens during operation and displacement of it afterward. Scrupulous attention to the condition of the patient as regards sleep, bodily tranquillity, and the action of bowels and kidneys, is the chief safeguard against deep-seated hæmorrhage, but in certain cases this complication is inevitable.

The ultimate success of the operation depends largely on the formation of a permanent subconjunctival fistula which keeps the eye slack. The presence of such a fistula is shown by a bleb-like elevation of the conjunctiva over some part of the cicatrix. Iridectomy for glaucoma will be a more perfect operation than it is at present when we have learned how to establish such a filtration scar in every case.

Permanent retention of vision is not always secured, however, by an operation which fulfills the requirements already mentioned. The optic nerve, like other nerves, when once it has been reduced to a condition of partial atrophy, as in advanced glaucoma, is especially liable to undergo further atrophy when the nutrition of the nervous system in general fails. Anxiety, overwork, loss of appetite, and loss of sleep are potent causes of such failure.

The treatment of glaucoma must, therefore, include, in addition to an efficient operation, careful and persistent attention to the health and habits of the patient.—PRIESTLY SMITH, in *Journal of Ophthalmology, Otology, and Laryngology*.

Nephritis in Children.—Of all diseases of childhood, this demands the most prompt, vigorous, intelligent, and careful treatment. Three essential factors in the treatment must be recognized, viz.: Relieve the kidney of the extra work of carrying the transuded serum from the tissues, as well as the retained products of tissue metamorphosis (usually excreted by the kidney, and retained because of its damaged state): Restore the kidney to its normal condition: Endeavor by intelligent medication and diet to prevent further damage to the diseased organs.

In meeting the first indication, resort must be had to the other emunctories, the skin and the bowels, and at no age can these be relied upon more than during early life. Calomel is indispensable; it stimulates the liver to action, causing a more complete metabolism of waste materials in the blood and their excretion in the bile; by the increased flow of bile the contents of the bowel are rendered

more fluid, and the elements to be otherwise excreted more soluble in the blood, thus proving less irritating to the kidneys. The salines are of great service as hydragogues.

Hot-air baths must be relied upon for their diaphoretic action, as pilocarpine is not to be depended on. Liquor ammonia acetatis is an efficient remedy in the stage of convalescence, acting beneficially upon the kidneys and the skin.

The high tension in the arteries can be combated most efficiently by blood-letting, the beneficial effect of which is seen upon the pulse, the nervous system (by ridding the blood of a quantity of the toxins at once), and the kidneys (by lowering the blood-pressure).

A very valuable agent is water, given perhaps plain after filtration or boiling, as young children take carbonated waters with reluctance. Given *ad libitum* and at regular intervals if the patient does not call for it, it acts as a diuretic without causing any irritation. If refused by the mouth, it acts well in large enemata.—*American Practitioner and News*.

Emetics.—In pædiatric therapeutics emetics have fallen into undeserved discredit, and as a consequence stomach-washing has grown into favor. This latter plan is no more effectual, is attended by considerable difficulty, and is not entirely free from danger. Overeating is a frequent condition, and for it small doses of calomel, followed, if necessary, by a cathartic, are in favor; but an emetic with copious draughts of lukewarm water will do the work at once. I have so often seen school headaches treated by bromides that it seems to me we have drifted from all therapeutic principles. Non-depressing emetics are of great value in preventing atelectasis in infantile bronchitis and in pertussis. Turpeth mineral answers the purpose so well, and the dose required is so small and convenient, that it has supplanted all other irritant emetics. In catarrhal laryngitis and tonsillitis cynanche, nauseant emetics are indicated, but syrup of ipecac should be discarded as slow, uncertain, and ineffectual: the wine is made from the fluid extract, and can be depended upon. Antimony should be banished from the nursery, although in children it is often more beneficial in controlling brain symptoms in meningitis, and such inflammations as orchitis and parotiditis, than either aconite or veratrum. A good plan is to give $\frac{1}{100}$ to $\frac{1}{60}$ grain every half-hour until slight nausea is produced.—*Pediatrics*.

Calcium Carbide.—In cancer of the uterus a piece of calcium should be placed directly in the vault of the vagina, where it is speedily decomposed into calcium oxide and acetylene, owing to contact with moisture. At the end of several days the oxide may be removed by means of irrigation with a weak solution of corrosive sublimate. The treatment can be repeated several times. The results are very appreciable, and the diseased parts assume a grayish tint and become smooth, and at the same time hæmorrhages, fœtid discharge and pain are suppressed. Diarrhœa also can be avoided by the employment of small pieces of this substance.

The action of calcium carbide appears to be rather complex. The nascent quicklime without doubt acts in concert with the acetylene which passes into the urine, where it has been found. Perhaps by contact with the cancerous elements the calcium forms a special coagulation of the blood analogous to that observed in persons poisoned by illuminating gas.—GUINARD, in *Gazette Médicale de Paris*.

Ulcer of the Breast.—A year ago a lady consulted me regarding a deep and spreading ulcer on the breast which had been diagnosed as cancer. The skin and underlying tissues were indurated and felt as if the whole mass was soldered together; nipple retracted and very painful. I ordered a local application of tincture thuja diluted to half-strength with equal parts of glycerin and strong white sugar syrup; internally forty drops of saturated tincture of burdock seeds three times daily. The ulcer was occasionally sprinkled with finely powdered burnt alum. Eight months' treatment sufficed to cure the ulcer. Whether or not this was a cancerous lesion I cannot positively say, yet several experienced practitioners so pronounced it. The ulcer was kept constantly moistened by means of a piece of lint wet with thuja solution. The cleansing and healing process slowly going on could be perceived from week to week.—*American Medical Journal*.

Infantile Colic.—Doctors are often requested to prescribe for infants suffering from what the nurse calls colic. After ascertaining that the cause of distress is not mechanical, such as pins, chafing of clothing, etc., I put one drop of tincture lobelia in an ounce of water, and give one-half teaspoonful, warm; the little one will usually fall asleep in five minutes. Any return of the trouble will yield to one or two doses. I have used this for many years, and never knew it to fail

in any case where those conditions were present.—DOCTOR HOLTON.

I can add my evidence to the above. I have found lobelia to quiet where all else failed; but in many cases I give larger doses—one to six drops—not caring whether vomiting is produced or not. It has quieted like magic.—EDITOR *California Medical Journal*.

Chimaphila.—The really valuable property of prince's pine is its kindly action in catarrhal states of the bladder; the more manifest the catarrh, the better its action. If pus and blood be voided, the efficacy of the drug is the more pronounced. It is not a remedy for acute and inflammatory troubles, but for the chronic and lingering disorders that give rise to excessive voidings of mucus and muco-pus, offensive or non-offensive in character. If marked irritation is present, associate with eryngium; if dribbling of urine occurs, as in old people, or if there is nocturnal incontinence, give thuja.

The dose of chimaphila should not be too small. If the infusion is employed—and this is a very effective way of administering—a wineglassful should be ingested every three or four hours.—*Eclectic Medical Journal*.

Rhus Aromatica.—I use the fluid extract with good results in incontinence of urine in children, in doses of from two to fifteen drops three times daily. If the urine is acid and high-colored, at the beginning of treatment I prescribe teaspoonful doses every two or three hours of the following alkaline mixture:

Potassium citrate, 2 drachms.
Sweet spirit of nitre, 4 drachms.
Simple syrup, 1 ounce.
Water, to make 3 ounces.

In nearly all cases it is wise to add tonics, especially strychnine.

A child five years of age suffering from diabetes insipidus seemed to improve on *Rhus aromatica*.—CARPENTER, in *Polyclinic*.

Expectorants.—Ammonium carbonate is not half so useful as the muriate; the latter should be given in small doses at first—two or three grains, increasing to ten or fifteen.

Codeine is very effective in irritative cough, but constipating when used in doses as large as one-sixth of a grain.

Hydrocyanic acid is certainly of great benefit in nervous coughs, but must be used with extreme caution.

Ipecac is better than squill, and both are to be preferred to wild cherry bark.

Terebene is certainly useful, but terpin hydrate is worthless.

The best results are often obtained, of course, by a scientific combination of two or more of these remedies.—DOCTOR J. K. CROOK, in *Medical Record*.

* *Cerium-Oxalate Habit*.—Doctor Craigen, of Cumberland, Maryland, reports the case of a woman forty years old, hysterical, to whom he was accustomed to give cerium oxalate in powders of from five to ten grains, and who developed an inordinate appetite therefor. On one occasion he placed half an ounce of oxalate in a dry goblet and handed her a teaspoon and bade her help herself. "She ate this in six hours, and would have eaten it in two had the family permitted." No apparent effect was noticeable, though she declared it made her "feel more comfortable." During two months she ate five ounces of cerium oxalate, and still continues it.—*Medical Standard*.

Modification of Chopart's Operation.—It is well known that after this operation the tendo Achillis often contracts and draws the end of the stump forward, so that the patient walks on the corner of the stump instead of the plantar surface. At best there can be no voluntary flexion or extension and no elasticity of the step.

To obviate this I dissect out the flexor and extensor tendons, bringing together over the stump, lapping so as to give ample room for stitching together. The tendons unite so that perfect flexion and extension are secured, and this gives the individual a much more natural and elastic step in walking.—NICHOLAS SENN.

Whooping Cough.—

- ℞ Ammonium chloride, 2 drachms.
Ammonium bromide, 2 drachms.
Chloral hydrate, 2 drachms.
Syrup of senega, 3 ounces.
Syrup of tolu, 3 ounces.

A teaspoonful every three hours for a child five years old.

When the nature of the disease is definitely determined, substitute:

- Bromoform, 6 drachms.
Chloroform spirit, 3 ounces.
Compound tincture of cardamon, 3 ounces.

A teaspoonful every three hours.

—ESHNER.

Passing the Catheter.—Pick out a medium-sized Jaques catheter; pass it down until it

strikes the obstruction and refuses to move another inch; fill a large aspirating syringe or any piston syringe holding two or three ounces, with hot water, couple the syringe to the end of the catheter, and gently force in the fluid, at the same time rotating the catheter; the pressure of the water forms a bladder-like sac at the end of the catheter, which forces the gland back, and by the gentle rotation the catheter rides over the gland, and the trick is done.—WATERHOUSE, in *Georgia Eclectic*.

Chronic Tonsillitis.—A solution of soda bicarbonate, ten per cent., common salt, six per cent., used as a gargle or atomized, is a good local remedy, and, if continued regularly every day, will cure. It carries almost immediate relief to painful sore throat of every kind.—ADOLPHUS.

True and Artificial Mustard Oil.—Allowed to evaporate from bibulous paper, natural oil of mustard leaves behind a pleasant yeast-like odor, while in the case of the artificial product the odor is rank and composite.—*Schimmel's Bericht*.

Tapeworm.—Give eight grains salicylic acid every hour until five or six doses have been taken; then follow with a full dose of castor oil. This is often very effective.—*Times and Register*.

Lupus.—Zerenine claims to have obtained remarkable results in the treatment of this stubborn malady by the local application of creosote.—*Medical Summary*.

Flatulent Dyspepsia.—Equal parts of magnesia, phosphate of lime, and sulphur; a teaspoonful as required, in a little water.—*Provincial Medical Journal*.

Prophylaxis of Rheumatism.—Celery boiled in milk is recommended as being highly effective as a preventive of rheumatism.—*Medical Summary*.

Solution of Borax.—The solubility of borax may be increased by the addition of a small quantity of cane sugar.—*Medical Times*.

Uterine Fibroids.—Thyroid extract has been used successfully in a number of cases and is said to diminish the menorrhagia.

Medical Progress.

NEGRO DOCTORS.—There are, in almost every neighborhood, through the rural districts, negroes who profess to cure some disease or other; they are all specialists, as they treat only one, or at best two, ailments. I don't mean to say that they are specialists as we understand the term in the profession. Near the writer, for several years past, a negro doctor lived who professed to cure the toothache, but didn't cure any other disease. I heard dozens of men, white and black, say that Lewis Howlett—that was his name—could cure the worst case of toothache, but none would divulge the secret. This gave me no little desire to know of what his remedies consisted, but I learned, on talking to the old man, that no one would be informed unless he was a sufferer, and then the remedy would not prevent a return of the pain if the secret was divulged. Finally my turn came—a severe pain in a molar which made me very nervous. I didn't want the tooth extracted, but while I was contemplating a call on the dentist, "Dr. Howlett" came by and asked what was the trouble. On learning that it was a case which came under his specialty, he insisted on trying his remedy, assuring me the tooth would never ache again, and exhibited his own pearly grinders as a proof—"They were cured when I was a boy," was his concluding remark. I, more from curiosity than faith in his appliances, agreed to go to the old man's house and have him treat me. We went out to his "tramping ground," as he called it, and, exhibiting the inferior maxillary of a horse, he said, "This is my remedy." I hesitated, and asked several questions, to all of which he only said: "Tote this in your mouth and follow me, and you will have no more toothache forever!" Now, I don't believe in conjuring, spooks, etc., but I was not willing to let the chance pass to know the mystery of such a cure, for I had been informed by reliable parties that Lewis could cure the toothache; and therefore, after hesitating and reconsidering the matter, I concluded to give his remedy a trial; but to clinch a horse's jawbone with my teeth was a pretty bitter pill. I was kindly informed that it was all right—it was the same bone that had been used for forty years—by every negro in the country; which was consoling. Having adjusted his "instrument," we proceeded to "tramp;" the old man preceding his humble patient five or ten feet, nodding his head and repeating in a whisper some words I could not hear. We had not gone more than fifty

yards before I discovered that my mouth, including every muscle of the face and neck, was getting weak, and it was soon quite obvious that, if "the tramp" continued, the patient would have to rest; but finally the doctor halted and relieved me of my burden, not allowing me to touch the instrument, and with a broad grin said: "War's your toothache?"—It was gone! But the one tramp of 135 yards (I counted it on our return) was not the end of it; this had to be repeated three or four times, and every time it was a demand on the whole of my maxillary strength to hold "the instrument," and a most profuse ptalism was, each time, the result—pilocarpine in medium doses could not equal it. It was altogether a severe remedy, but no mystery when once understood, as the weight of the bone was the cure, and any other weight would answer the same purpose. I don't think it would be necessary to tramp; but to sit and hold the weight of the jawbone of a large horse by the teeth for five minutes at a time, will produce copious excretion of saliva and give relief; the secret and mystery of ceremonies cut no figure in it.

We have lately had "The Faith Doctor" in our town, a very religious negro preacher of the Primitive Baptist Church. He passed through here about four years ago, but only stopped at the large towns; now that he is becoming more common, he can afford to honor small towns with his presence. He passes his hands over the patient, much as the poles of a battery are used. Many claim to be relieved at once, but many were not benefited, and of course the doctor claimed that they (those who were not benefited) didn't have the proper faith—didn't have the faith of a mustard-seed.

Such doctors all have a power in some way to give a part of the many thousand applicants relief. It may only be a mental impression, but I am satisfied that this one had inherited a supernatural electric power through some latent freak of nature, just as some people have superhuman strength—twenty times the muscular strength of ordinary people.

Recently a negro man called at my office to get a little medicine for the "running rains," as he called it. I explained that I didn't treat a case of gonorrhœa for less than ten dollars, and didn't want to treat them at all. He didn't want me to treat him, but only wanted some remedies, as he could combine them and "knock it up" in four to six days. I at once turned druggist, and was ready to fill his prescription, which consisted of equal parts of sulphate of iron, alum, and pulverized egg-shells, made into pills with

soft pine resin; the latter two ingredients he would add. These pills were to be made into larger pills, to be taken three times a day, and at the same time the patient was to drink freely of white-ash tea (*Fraxinus Americana*).

He was back again in about six days, only to inform me that he was as sound as a dollar, and was tickled very much at my surprise, as he "knew the remedies would cure every time."

I have refused to treat several negroes for syphilis, because they were transient fellows and there was no visible means of remuneration, but they came back in a few weeks to inform me that a certain negro doctor had cured them in the shortest order; I have never been able to discover the remedies used. Several times, after I had exhausted the whole list of remedies on cases of syphilis, these old negro doctors would make a cure in a short while, and cease all remedies, without a return of the malady.—C. D. KIRK, in *Eclectic Medical Journal*.

DILETTANTE THERAPEUTICS.—We hardly know upon whose shoulders the blame for this peculiar condition should rest; but any one who has observed the modern trend of medication cannot have failed to notice that a great proportion of our practicing physicians are *dilettanti* in the art of prescribing. The pendulum has swung from one extreme to the other; and it is to be hoped that, if the oscillations continue, the right and proper medium will be finally attained. Many can still recall to mind the enormous and nauseous doses which patients were forced to swallow, and the disastrous effects which frequently followed the well meant but illy directed efforts of the Doctor Sangrado of the period. As is noted in fashion, a complete revolution declared itself; and as a result minimal doses, put up in a most pleasant manner, were adopted.

The final outcome of this radical change is now before us. It may be observed in our literature, periodical and other. Doses have dwindled down to a mere nothing, and clinics and hospitals have increased numbers of patients. An almost insane fear has taken hold of the profession, which no longer dares to administer active treatment. Even surgeons have this terror. They use such dilute antiseptic solutions that they could more profitably substitute boiled water for them, and with better hopes of ultimate success. We no longer hear of "ten and ten" being given to a patient, and yet it was a most valuable dose in the cases in which it was indicated.

Syphilitics are given remedies in such small doses that the effects which should be produced do not manifest themselves. In them, as well as in others in whom medication has been neither active nor massive enough, nerve troubles, peripheral and central, follow as a natural consequence of the therapeutic cowardice which has been engendered by precept and by advice; diseases of the nervous system are on the increase, and will continue to be so until medication becomes rational.

The teaching of therapeutics has been a much-neglected branch in our medical colleges. Not that lectures are not given on the subject, but the true action of remedies in different and varying doses is not dwelt upon, and, as a result, the young graduate is loaded with prescriptions labeled duly for what disorder they are good (or not); and with this armamentarium he looks upon himself as a veritable medical paladin. The professors and students alike seem to forget the principal ingredient of every prescription—*brains*. This is a most deplorable condition indeed. To increase the trouble, proper dosage is equally neglected; and small and inefficient doses are but too often the result, *dilettante* therapeutics following as a natural consequence. Some few, who are capable of recognizing the needs of a case, are accused of giving "horse-doses;" but, strange to relate, they are usually successful in the results they achieve.

It is a very deplorable fact that bacteriology, surgical pathology and surgery occupy nearly the entire attention of students whilst undergraduates; and when they face the treatment of disease, they nurture and cultivate such a total disregard for therapeutics that they are content to limit themselves to a few formulas of doubtful worth. This is further aided by medical societies, whose proceedings are regarded as valueless unless specimens of surgical prowess are exhibited. Medicine has arrived at such a point, especially in large cities, that to be a physician is to argue one's self unknown. We are thankful that the country doctor is still pursuing the even tenor of his way and daily demonstrating to his *dilettante* brethren that medicines properly administered in proper doses not only do good, but keep up the proper physical tone of the bone and sinew of the land.—*St. Louis Medical and Surgical Journal*.

TRANSFIXION OF THE LEFT VENTRICLE BY A SHARP WIRE.—John Craig, under sentence of death at Folsom State Prison, on the morning of June 11th, at 4.30 o'clock, introduced a piece of No. 10 galvanized iron

wire, six inches in length, into the chest cavity, the point of entrance being one inch below and one-half inch to the right of the left nipple. The prison surgeon was immediately summoned, and found the wire protruding from the chest for a distance of two inches. It was removed, and measured six inches in length, the point being very keen from constant rubbing on the cell floor; the opposite extremity was slightly curved. The patient was in a state of collapse, the pulse being imperceptible at the wrist. One-sixtieth of a grain of sulphate of strychnine was administered hypodermically, and he soon began to rally and give evidence of severe pain over the cardiac region. He could hardly get his breath. The pulse soon became full and strong, running to 90, and remained so until the end. He stated that he suffered very little pain after the wire passed through the skin. He had made a pad of the blanket and given the wire a vigorous push; he could feel the heart moving it; then, gradually withdrawing it for a short distance, by a strong effort he forced it home. It is supposed that it was the last thrust that transfixed the heart. He continued to suffer pain of a pleuritic character and was very restless, occasionally wanting to be lifted up to get his breath. Nothing but the strychnine was given him, for fear of ill-effects upon the heart. At 9 P.M. he was given thirty grains of chloral, and slept three or four hours during the night. At 7 A.M. he was given two ounces of whiskey, and between that and 10 A.M. two ounces more, when he was executed. The source from which he obtained the wire will always remain a mystery.

Autopsy showed the body in good condition. A punctured wound was found one inch below and one-half inch to the right of the left nipple. Upon opening the chest cavity the pericardium was found to contain two ounces of blood. The apex of the heart showed two punctured wounds, one of which penetrated the ventricular cavity; the other, on a plane slightly superior and posterior, passed completely through the heart, the point where the wire emerged after traversing the cavity of the ventricle being plainly visible.

The heart's action was therefore maintained for fifteen minutes though wounded in three places and literally impaled upon the wire. The length of time from the infliction of the injury until his execution was nearly thirty hours.—HANNA, in *Occidental Medical Times*.

powerful than non-diabetic blood in removing the blue color from a solution of methyl blue. The reaction is so sensitive that the difference can be detected by the examination of a drop of blood obtained by pricking the finger. When *certain proportions* of blood and a warm alkaline solution of methyl blue are mixed together, the blue color is removed in the case of diabetic blood, but remains when non-diabetic blood is used. The following is the exact method employed:

Into a narrow test tube are placed forty cubic millimeters of water (the capillary tube of a Gowers' hæmoglobinometer, which is marked for twenty cubic millimeters, may be used for measuring the fluid); twenty cubic millimeters of blood are added, and then one cubic centimeter of a 1:6000 watery solution of methyl blue, and afterwards forty cubic millimeters of liquor potassæ. The tube is then placed in a capsule or vessel containing water which is kept boiling. At the end of four minutes the blue color disappears and the fluid becomes yellow if diabetic blood has been used, but in the case of non-diabetic blood the blue color remains.

In over thirty examinations of diabetic blood (from five cases of diabetes mellitus), the methyl-blue solution was always decolorized; whilst normal blood and the blood from 100 patients suffering from the most varied diseases never decolorized methyl blue when mixed in the above proportions. Hence, by this simple method a drop of blood from a well marked case of diabetes mellitus may be readily distinguished from non-diabetic blood.—R. T. WILLIAMSON, in *Medical Press and Circular*.

A FŒTUS STABBED.—A woman, six months pregnant, was stabbed twice, both wounds penetrating the abdominal cavity; and as there were signs of internal hæmorrhage, laparotomy was immediately performed. The uterus was found to have been perforated in two places by the knife, and the wounds were closed by sutures, the hæmorrhage being thus checked and the immediate danger removed. The patient progressed very well until the third day, when severe pains came on, and on the next day an abortion took place, from which she completely recovered. The fœtus was dead, and on examination it was found that one stab had penetrated the left side of its chest, and another had wounded the small intestine in two places, purulent peritonitis having thus been set up. The case is unique, and the fact that peritonitis from the intestinal wound was caused in a six months' fœtus is a clinical fact of great interest.—*Nursing Record*.

SIMPLE METHOD OF DISTINGUISHING DIABETIC BLOOD.—Diabetic blood is much more

POISONING BY MALE FERN.—The primary lesion of the optic nerve in cases of poisoning by the oleoresin of male fern, which leads to amblyopia and blindness, is vascular. There is ample proof of the existence of this lesion, even when there is no functional disturbance of the optic nerve and no trace of any morbid change in the nerve fibre.

This vascular lesion consists in considerable proliferation of capillaries, with cell-infiltration of the perivascular space. It determines at a very early date strangulation of the optic nerve in the foramen opticum; later on there is nothing found at this spot but a homogeneous mass, constituting a thick wall for the capillaries.

When these lesions are far advanced the nerve fibres disappear, the last ones to persist being those situated near the retina. At and behind the optic foramen, the space thus left free is filled by a reticular mass, containing cells in a state of proliferation.—MASIUS.

COLOR BLINDNESS IN ASIATICS.—A naval surgeon reports that, in Japan, among 1200 soldiers, 1.58 per cent. were red blind, and 0.833 per cent. green blind. Among 373 boys, one per cent. were red blind, and among 270 girls 0.4 per cent. Among 596 men in Kyoto, 545 showed defective color sense. Doctor Fielde, of Swatow, China, examined 1200 Chinese of both sexes, using Thompson's wool tests. Among the 600 men were nineteen who were color-blind, and among 600 women only one. The percentage of color-blindness among Chinamen is then about three per cent., and does not vary greatly from that in Europeans. Fielde, however, found that fully half of those tested mixed up blue and green, and this investigator thinks that many of the race are quite blind to the violet colors.—*British Medical Journal*.

EFFECT OF PHOSPHORUS ON GROWING BONE.—Kissel experimented on growing dogs, administering the drug in oil. It was found the toxic properties are much more pronounced than is usually supposed, and that disturbance of digestion during its use, though apparently trivial, may have a fatal termination. Ten centigrammes per kilogramme of body weight caused symptoms of chronic poisoning, with marked atrophic changes where bone had been deposited. Six centigrammes per kilogramme hindered the normal development of bone; 3.3 centigrammes per kilogramme is the largest dose that can be given with perfect safety. In

chronic poisoning with small doses, there was marked fibrosis of the liver. No dose of phosphorus had any favorable influence on the growing bone.—*Virchow's Archiv*.

ACTION OF TURPENTINE ON THE KIDNEYS.—Its pathogenic influence is intense, for patients complain of a sensation of weight in the renal region with burning and drawing pains, sensitiveness to pressure over the kidneys, tenesmus and cutting pain in the bladder, burning pain on urination, etc., all symptoms pointing to great irritation of these organs. At first the urine is decreased in quantity, gradually passing on to complete suppression; as it decreases it grows darker in color, finally to contain blood, even to be nearly pure blood; at the same time it frequently contains a mucous and reddish-white sediment which consists of blood and renal detritus.—*Allgemeine Homœopathische Zeitung*.

PATHOLOGY OF PATE DE FOIS GRAS.—Peres has investigated the cause of the severe gastric troubles which occasionally follow the eating of this gastronomic dainty, and finds that they arise from the presence of an excess of oxalate of potassium in the goose liver. It appears that the producers of these diseased livers are wont to shorten their period of development and to produce larger livers by administering to the bird "salt of sorrel," otherwise called binoxalate of potash. This process has, heretofore, been kept carefully secret.—*Medical Press and Circular*.

LOCOMOTOR ATAXIA.—Analgesia of the trunk of the ulnar is said to be characteristic of this disease. The mode of testing is by pressure on the nerve in the intercondylar notch at the elbow, and noting the effects as to pain or paræsthesia in the distribution of the nerve. This symptom is not constant in females; among men it is pathognomonic. It may be utilized in detecting malingering, also as between epilepsy and hysteria, as analgesia is frequently found in epilepsy.—*American Medico-Surgical Bulletin*.

A SIGN OF DEATH.—Light a wax vesta, and apply the flame close to the skin until a blister is formed; if it contains serum, the person is still living; if, on the contrary, it contains only gas, it will burst with a small explosion, and life is extinct.—BRANDT, in *British Medical Journal*.

The Medical Age.

VOL. XIV.

DETROIT, NOVEMBER 10th, 1896.

No. 21.

Original Articles.

TYPHOID FEVER.*

BY DOCTOR JOAO VICENTE TORRES HOMEM.

(Continued from page 614.)

Not rarely, at the end of typhoid fever, we observe the appearance of parotitis, which suppurates and determines the patient's death, as also of huge abscesses in different regions, which highly aggravate the prostrated condition under which the system is suffering, and form genuine complications.

Convalescence from typhoid fever is always difficult and prolonged: In some patients the hair of the head falls out, the muscles of the limbs atrophy, articular pains appear, there are frequent derangements of the digestive organs, and the bronchial catarrh persists for a long time. It is during convalescence that the disorders of intellect of which I have already spoken manifest themselves, assuming the character of true dementia.

The endocarditis of typhoid, though rare with us, is yet present in some instances, and almost always passes unnoticed at the beginning,—it is only later on, at the end of some months, or of one or two years, that it becomes patent, altering the play of the valves of the heart, embarrassing the circulation in the interior of that organ, and constituting an organic lesion appreciable by means of the abnormal sounds proper to it.

The course of typhoid in Rio de Janeiro is, as a rule, irregular and insidious. No doubt some cases present themselves in which the morbid phenomena succeed one another with great regularity and harmony, but these compose the minority and are ordinarily benign. In the beginning—that is, during the first twenty-

four or forty-eight hours—the disease much resembles remittent or pseudo-continued malarial fever; it is from the third day on that the physiognomy of this pyrexia keeps growing more expressive and characteristic; and it is only after the first week that the morbid phenomena attain their complete diagnostic value. In some cases the patient seems sensibly improved at this period, and the physician supposes it to be a case of the benign form of typhoid fever (*typhus levissimus*); but later the febrile action (which had almost entirely disappeared) becomes exaggerated, grave symptoms appear, and the disease proceeds to a fatal termination.

In the form known as low nervous fever the patient presents for many days, sometimes for more than a month, but little marked febrile reaction, with evening exacerbations (102.2° – 102.6°) and morning remissions (100.4° – 101.4°), together with profound adynamia and some sub-delirium; he keeps on emaciating little by little, and dies from sheer nervous exhaustion.

It is not very rare here to observe a cerebro-meningitis interrupting the regular progress of typhoid fever, and determining the patient's death in a few days, ordinarily in the course of the second week. (Case 3.)

Just as some cases of typhoid commence with paroxysms of intermittent fever, in others these paroxysms appear at the beginning of convalescence and require the use of the salts of quinine.

In ten cases of typhoid observed in the hospital wards and followed by autopsy, both constant and variable anatomical lesions were found, viz.: Changes in the intestinal follicles, mesenteric glands, and spleen; and changes produced in the various organs of the system, and dependent on the predominant form of the disease. The follicular apparatus of the intestine presented two orders of changes, corresponding to the two kinds

* Translated from the Estudio Clinico Sobre as Fiebras do Rio de Janeiro, by Doctor George Bradley, U. S. Navy.

of follicles composing it—the conglomerate follicles, or Peyer's patches, and the isolated follicles, or Brunner's glands; these changes varied according to the duration of the disease. In two cases the follicles were barely hypertrophied, engorged, hard and resistant to the touch; Brunner's glands appeared as little conical elevations, rounded, and scattered indiscriminately over the whole circumference of the intestine. The elevations formed by Peyer's patches occupied a larger area, and were present chiefly upon the convex border of the intestine; some were oval, and others rounded; they were three to nine centimeters long and two to three broad. These patches, thus altered, were at some points not hard and resistant, but the mucous membrane and subjacent cellular tissue were softened,—on section, their interior presented the appearance of the flesh of a pear ("soft patches" of Louis, "reticular patches" of Chomel); at other points they were very hard, and the sub-mucous cellular tissue, instead of being merely inflamed or infiltrated, was transformed into a homogeneous yellowish, friable material, without a trace of organization. In one case the patches presented on their surface a dark punctation, similar in appearance to a newly shaven beard; they were not hardened, and were but slightly prominent. In seven cases ulcerations more or less extensive and deep existed; in Peyer's patches these ulcerations were oval or elliptical, three to eight centimeters in extent; in Brunner's glands they were circular and much smaller. The changes met with in the intestine were in all the cases more deep and extensive in the ileum and cæcum; the ileo-cæcal valve was red, swollen, and infiltrated. The same lesions were noted also in the jejunum, but on a less scale. In the colon the follicular ulcerations were few and very limited. In all, the first and last portions of the intestinal canal (duodenum and rectum) suffered no other lesion than some hyperæmia of the mucous membrane. In three cases, where the patients died during the fourth week, some ulcerations were discovered in an advanced state of cicatrization.

The mucous membrane of the stomach was very red in four cases, softened in one.

The mesenteric glands corresponding to

the altered intestinal follicles were involved in all the cases; in some they were only a little enlarged, reddish, softened, and friable; in others they were enormously developed, yellowish, and infiltrated with pus.

The spleen was more than double its size in nine cases, a little enlarged in one; in all it was softened, and broke down easily.

The liver was increased in volume in seven cases, fatty in three, hardly a little congested in two.

The kidneys were enlarged and congested in three cases.

In six cases the meninges and substance of the brain appeared slightly injected; in three, nothing noteworthy was observed in the brain; in one, autopsy revealed all the phenomena characterizing cerebro-meningitis (Case 3).

In the lungs were found large foci of congestion in three cases, genuine red hepatization in one, tubercular granulations in one, great hyperæmia of the bronchial mucous membrane in eight.

The heart was pale and flabby in two cases, hypertrophied in one, with signs of general endocarditis in one, fatty in two, normal in four.

The cord was examined in only one case, where the patient had complained of cramp in the lower limbs; nothing appreciable by the ordinary methods of investigation was found.

Case 1.—Emilio Dupeyrat, Frenchman, aged 32, hotel clerk, of lymphatic temperament and poor constitution, entered Santa Isabel ward May 11th, 1873, on the fourth day of his disease. On the morning of the 7th he awoke with contusive pains in upper and lower limbs, headache, and fever. The physician who visited him gave him a diaphoretic and afterwards a purgative of castor oil, and next day some pills of quinine. On the 9th appeared profuse epistaxis and some diarrhœa; the fever became more intense, and he was very much prostrated. On the night of the 10th he was delirious and could not sleep.

On entrance he presented a stupid face, great prostration of strength, dorsal decubitus, movements difficult; temperature 102.6°; pulse 98; tongue much furred, and a little dry at the tip; intense thirst; liver normal; spleen a little increased in size; belly tympanitic, with diarrhœa, and pain and gurgling

in the right iliac fossa; urine scanty, no albumen; some cough, and mucous râles scattered over both lungs; some drowsiness; pupils contracted; absence of delirium; answered tardily but clearly.

Ordered two drachms of sulphate of magnesia to be given every hour until six doses were taken; also a fomentation to abdomen of oils of chamomile and turpentine, equal parts.

At 5 P.M. the temperature rose to 104.1° , and the pulse to 106; the saline purgative had produced eight evacuations.

On May 12th the prostration was greater, accompanied by apathy and sub delirium; temperature 103.3° ; pulse 100; tongue dryer; liver increased in size; spleen more enlarged; tympanites less pronounced; diarrhœa; still pain and gurgling in right iliac fossa; urine scanty, high-colored, containing but a small quantity of chlorides; cough more frequent and catarrhal râles more confluent. A wine-glassful every two hours of the following was prescribed: Decoction of marshmallow root, 16 ounces; acetate of ammonia, 4 drachms; syrup of orange flowers, 2 ounces. Also wine lemonade as beverage; an enema of infusion of chamomile; fomentation to abdomen; and two chicken broths.

At 5 P.M. the temperature rose to 104.5° ; epistaxis had set in, and the delirium reappeared.

May 13th: Profound adynamia; epistaxis moderated; constant delirium; pupils very contracted; temperature 104° ; pulse 108; tongue very dry, scarlet at tip and edges; teeth covered with sordes; great sensitiveness in epigastrium; liver and spleen more enlarged; abdominal tympanites very much increased; diarrhœa; pain and gurgling still apparent in right iliac fossa; same physical signs in the respiratory organs. The urine was not examined, because the patient passed his water in bed. Ordered a sedative mixture containing carbonate of ammonia, tincture of musk, and extract of hyoscyamus; wine lemonade; linseed poultice over abdomen; and chicken broths.

At 5 P.M. the interne found the patient very restless, with delirium, trying to get out of bed, and with tremor of the upper limbs; temperature 105.5° ; pulse 124, small and weak.

On the 14th the adynamia was very marked; drowsiness alternating with sub-delirium; no epistaxis; tremor of upper limbs; subsultus tendinum; temperature 104.8° ; pulse 112; tongue very dry and retracted; teeth covered with sordes; tympanites less, and absence of gurgling and pain in right iliac fossa; diarrhœa less frequent and profuse; urinated and

passed stools in bed; stertorous râles occupied the entire extent of both lungs. Prescribed six ounces of good port to be taken in tablespoonful doses, alternating with an antispasmodic mixture; an enema of infusion of Virginia snake-root, with camphor, tincture of valerian, and asafœtida; blisters to calves of legs; bathing of whole surface of body with water and alcohol; chicken broths.

At 5 P.M. the interne found the patient calm, without delirium or drowsiness; temperature 104.2° ; pulse 120; blisters had not yet drawn. Two spongings had been made, the first at 11 in the morning, and the second at 3 in the afternoon.

May 15th, the pain of dressing the blisters elicited groans from the patient, who was very much prostrated, but could move more easily in bed; delirium appeared from time to time, but some questions were answered clearly; temperature 104° ; pulse 112; tongue dry; tympanites less; three evacuations. Other symptoms unchanged. Same treatment, with four bathings daily at intervals of three hours.

At 5 P.M. the patient was delirious, with a temperature of 103.6° and pulse of 110. The first bathing had been given at 9 in the morning, the second at mid-day, the third at 3 in the afternoon, and the fourth was to be given at 6 o'clock.

There was sensible improvement on the 16th: General appearance much more lively, face more animated, look more intelligent, and answers to queries rational, although very tardily given; some tremor of the upper limbs still observed; temperature 102.4° ; pulse 98; skin moist; tongue less dry; teeth still covered with sordes; tympanites little marked, and pain and gurgling in iliac fossa absent; three evacuations during the twenty-four hours; urine still loaded, containing a larger amount of chlorides; bronchial symptoms unchanged; much cough, but expectoration easy. Same treatment except as to enema; two bathings daily; meat broths, coffee.

At 5 P.M. the only difference found was some increase of temperature (103.3°); pulse 100.

Continued improvement on the 17th. Patient answered well the questions put, though the Sister of Charity reported he was somewhat delirious during part of the night. Still tremor in the upper limbs; tongue barely dry at tip; liver and spleen still enlarged, but less so than on the 15th; tympanites little marked; two evacuations in the twenty-four hours; temperature 101.5° ; pulse 92; bronchial symptoms unchanged. Treatment continued; bathings with water ordered suspended; meat broth and 180 grammes of milk prescribed.

At 5 P.M., patient was sleeping calmly, with a temperature of 102.2° and pulse of 94.

May 18th, 19th, 20th, and 21st, patient steadily improved. There was no longer any symptom of ataxia observed; some redness of the tip of the tongue, and some diarrhœa (three liquid stools in the twenty-four hours); but the symptoms of bronchitis, though less marked, still persisted. On the 18th the blisters were healed with white ointment; on the 20th the antispasmodic mixture was suspended, and the amount of milk to be taken increased to 360 grammes. On the 22d he commenced the use of wine of cinchona exclusively, 200 grammes per day in three doses, and was given to eat, besides the milk, two boiled eggs and chicken stew. On the 29th he was discharged perfectly recovered.

Case 2.—Joao Quintella, Portuguese, aged 42, driver of a meat-cart, very robust and of sanguine temperament, entered the Santa Izael ward on July 22d, 1874. Had been ill since the 19th, and treated on the homœopathic system. After losing appetite and feeling very fatigued for two days, he woke up with fever and pain in the head, and found it impossible to go to work; went in a carriage from the Rua do Aterrado to the Rua de José to consult a physician on the 19th and 20th; on the 21st, upon getting out of bed, had vertigo which caused a fall, a contused wound of the nasal pyramid resulting.

On entrance the patient reported his only suffering was from fever, headache, and great prostration of strength. Examination revealed a dull face and languid eyes; intellect sluggish but clear; temperature 102.9° ; pulse 100; skin dry; tongue much coated; thirst; anorexia; slight abdominal tympanites; liver enlarged; spleen normal; bowels constipated; no pain or gurgling in iliac regions; urine high-colored, scanty, free from albumen; respiratory organs normal. Ordered an emetic of ipecac and tartar emetic; thirty grains of quinine, in two doses, to be given after action of emetic; a purgative enema of castor oil.

At 5 P.M. his temperature had risen to 104° , and the pulse was more frequent (120); he had purged and vomited freely; had not yet taken the second dose of quinine.

July 23d, there was great prostration of strength; patient answered questions with difficulty, and from time to time sighed deeply; temperature 103.6° ; pulse 110; tongue dry, but a rust-colored spot in centre; sensitiveness of epigastrium; tympanites; absence of pain and gurgling in right iliac fossa; two evacuations from 6 to 9 in the morning. Urine not examined; respiratory organs sound. Prescribed a mixture containing

forty-five grains of quinine, in tablespoonful doses every hour; blisters to calves of legs; orangeade as beverage.

At 5 P.M., notwithstanding he had taken the mixture, the temperature rose to 104.6° ; pulse 120; had sub-delirium.

There was manifest adynamia, sub-delirium and drowsiness on the 24th; pupils much dilated; deafness of cinchonism; temperature 104° ; pulse 100; tongue very dry and tremulous; teeth covered with sordes; great sensitiveness in epigastrium; liver normal in size; spleen enlarged; belly very tympanitic; rose-colored spots to the number of six at the upper part of the anterior wall of abdomen; absence of pain and gurgling in iliac fossæ; diarrhœa moderate; urine very scanty, high-colored, free from albumen; respiratory organs sound. Prescribed Murray's liquid magnesia with half a drachm of tincture of chamomile and tincture of hyoscyamus, two tablespoonfuls every two hours; wine with water (equal parts) to alternate with mixture; orangeade; linseed poultices to abdomen.

At 5 P.M. the temperature was 104.5° ; pulse 110; belly very tympanitic; epistaxis had appeared. Patient was bathed over the entire surface of the body with alcohol and water.

On the 25th, typhoid facies well marked—eyes half-open and pupils much dilated; sub-delirium; temperature 103.1° ; pulse 98; tongue very dry, and could not be protruded; teeth covered with sordes; still great sensitiveness of epigastrium; tympanites; no evacuations for twenty-four hours; spleen more enlarged; liver normal; urine passed in bed. Respiratory organs could not be examined on account of the profound prostration of the patient. Ordered ninety grains of soft extract of cinchona, and thirty minims each of tincture of musk and tincture of valerian in six ounces of port wine and water (equal parts) and one ounce of syrup of orange-peel; an enema containing six ounces decoction of cinchona and one drachm tincture of chamomile; linseed poultices to abdomen; blisters to thighs, continuing to dress those of the calves of the legs with basilicon ointment.

At noon, one hour after taking the enema, the patient evacuated a large amount of black and fœtid blood. At 5 P.M. he was free from delirium, but drowsy, with a temperature of 103.6° and pulse of 100. Enema was repeated at 6 P.M.

July 26th: Epistaxis slight; adynamia; face stupid; somnolence; temperature 102.6° ; pulse 96; tongue dry, cleft, stained with blood at some points, tremulous and drawn in; abdomen sunken, without tympanites, indolent, even in epigastric region; two evacuations,

one slightly bloody, the other bilious; the lenticular spots still persistent on the abdominal wall; spleen enlarged. Ordered four ounces good wine; poultice to abdomen; also a tablespoonful every hour of a mixture containing six ounces strong decoction cinchona, eighteen minims sulphuric acid, and four drachms syrup of rhatany; suspended use of enemata.

At 5 P.M. the patient was better, but with some delirium; no further hæmorrhages, but abdominal sensitiveness still persisted; temperature 102.9°; pulse 100.

His face was more animated on the 27th, but there was a tendency to torpor and the responses elicited were tardy and hardly intelligible; temperature 102.2°; pulse 92; tongue still very dry but without spots of blood on its surface, and tremulous and retracted; abdomen flabby and little sensitive to palpation; no evacuations; lenticular spots hardly perceptible. For the first time the patient was heard to cough, and examination of chest, though made with difficulty, revealed the existence of sibilant and sub-crepitant râles in both lungs, especially in the right. Treatment as before; and two chicken broths.

At 5 P.M., temperature 102.6°; pulse 98; some sub-delirium. At 7 P.M., one large spontaneous bilious evacuation.

There was perceptible improvement on the 28th, the face being still more animated than the evening before, and with more expression; responses more prompt and clear. There was noted in the left parotid region a well marked elevation, painful and resistant, indicating parotitis in progress of development; temperature 101.8°; pulse 90; tongue still dry, but without tremor; abdomen flabby and but little sensitive on palpation; lenticular rose-spots disappeared; urine more abundant, rich in chlorides, and slightly albuminous; sibilant and sub-crepitant râles in both lungs, but more pronounced in the right. Ordered tablespoonful doses of rich wine, six ounces to be taken in the twenty-four hours; and, in spoonful doses alternating with foregoing, soft extract of cinchona two drachms, in five ounces of water and one ounce syrup of orange-peel; plaster of cicuta and mercury to tumor in parotid region; meat broths and six ounces of milk.

July 29th, 30th, and 31st: Slow but progressive improvement. The patient was now able to go to the table without the aid of the nurse. His temperature varied between 101° in the morning and 101.8° in the evening; tongue continually grew more and more moist; appetite began to appear; symptoms in the respiratory organs somewhat modified. In the midst of these flattering

conditions the patient complained of violent pains in the parotid region; the tumor had greatly enlarged and was hard, especially at the base. Directed to be applied a linseed poultice, well sprinkled with laudanum, with oil of almonds. Ordered boiled eggs, soup, and coffee.

On August 5th the tumor presented all the appearances of a centre of pus, and Doctor Pedro Affonso Franco made an incision from which escaped a large amount of laudable pus. The temperature, which on the evening of the 3d had risen to 102.2°, doubtless owing to the abscess, fell to 99° and there remained until the 8th, when the thermometer ceased to be used. On account of the profuse suppuration of the tumor, and weakness, the patient could not be discharged until August 26th, having continued the use of wine, cinchona, and gentian, together with a restorative diet of meat, eggs, milk, bread, and stews.

In this case the disease became fully characterized only from the 24th on—forty-eight hours after the patient's entering hospital, five days after the appearance of the first symptoms. On the 22d, and even on the 23d, everything led to the belief that it was a case of grave malarial remittent fever. The inefficacy of the large doses of quinine, and the manifestation of certain phenomena common in typhoid fever, made me change my opinion as to the diagnosis.

This is one of the patients to whom I had reference when asserting that in Rio de Janeiro enterohæmia is a symptom rather favorable than pernicious when it appears in the course of typhoid fever. Although it occurred conjoined with other hæmorrhages, the next day after its appearance the patient was somewhat better, especially as regards the abdomen. There is no doubt that the parotitis was a critical symptom, which coincided with the favorable change observed in the patient.

(To be continued.)

THERAPEUTICS, NEW AND OLD.*

BY WILLIAM CARTER, M.D., B.SC., LL.B., F.R.C.P.

By therapeutics I understand any of the numberless means which are capable of influencing favorably the course of disease.

* A post-graduate lecture delivered in Liverpool. From the *Liverpool Medico-Chirurgical Journal*.

By old therapeutics I do not mean those of a period when our national pharmacopœias were encumbered with such so-called "remedies" as "*secundina humana; cranium hominis violentâ morte extincti; stercus humanum,*" etc. It can hardly be thought that there could have been any rational therapeutics in an age when the efficacy of such things could be so far believed in as to allow of their receiving the sanction of official authority. Individual men there doubtless were in that as in every other age who, seeing the relations of things more clearly than others, shrank from countenancing these absurd abominations. Such an one was Sir Thomas Browne, judging from his "*Inquiry into Vulgar and Common Errors.*" But the mere possibility of such things being allowed a place in a pharmacopœia implies the existence of a gross general medical superstition, which cannot fail to excite our wonder.

The old therapeutics to which I shall refer, and the method which I shall contrast with much of what is suggested as the basis of the application of remedies to-day, is of a more recent date. During the century, or century and a half, immediately antecedent to our own time, a new spirit had grown up, and originated a new method fruitful of the best results. Men refused to take every empiric's nostrum on trust, simply because ladies or gentlemen of quality—the Sir Kinelm Digbys and Dukes of Buckingham, and ladies of similar rank—chose to testify to its great merit. They did not consider that titles of honor proved the qualifications of those who possessed them to decide on a subject requiring much common sense, trained powers of observation, and the utmost scientific caution. They knew how fugitive and fluctuating were the phenomena of disease, how inconceivably complicated and variable was the organism with which they had to deal—how its reaction to drugs as well as to other agents varied in the most sensitive way with age, type of constitution, time of day, and habits of mind and body; how hopes and fears and spiritual aspirations came in to help or hinder them in their attempts to influence it; and how all this had to be allowed for before a safe judgment could be formed as to the efficacy of any given remedy; and, bearing all this in mind, they tried suggested drugs

or combinations of drugs on those who were diseased, and admitted or rejected them according as they stood the test. They do not appear rashly to have admitted a new remedy. The trial of its merits was generally one of years, sometimes of many years, before its final recognition came; but when it did come, there was not a medical man in the kindgom who did not feel that he was justified in confidently relying upon its efficacy. The proof of this is found in the fact that nearly every one of the great practical remedies which were the outcome of that trial remain to this day, and are as highly valued now as they were by our predecessors of nearly a century ago. Of the 559 substances contained in the London Pharmacopœia of 1809, there are very few indeed which are not present in that of to-day. Additions have, of course, been made (the number being now 942), and names altered, but what was judged to be valuable at the beginning of the century is judged to be valuable still. Indeed, as a proof of the soundness of the method of selection, we have quite recently reintroduced a pill of iron which had been allowed to drop out of official recognition, while we have expunged other substances, such as digitaline, far more recently introduced on the strength of a hastier and less reliable method.

It will be only necessary to mention some of the remedies to which I have alluded, in order to convince every practicing medical man how much he is indebted to the original sagacity in suggesting, and the thoroughness and patience in testing, displayed by the physicians and surgeons of a century or more ago. *Pulvis ipecacuanhæ compositus*, or Dover's powder; *pulvis antimonialis*, or James's powder; *pilula hydrargyri composita*, or Plummer's pill; *tincture cinchonæ composita*, or Huxham's tincture; *mistura ferri aromatica*, or Heberden's mixture; *mistura ferri composita*, or Griffith's mixture; *liq. arsenicalis*, or Fowler's solution; the *spiritus ætheris nitrosi* of Hoffman; *pulvis scammonii compositus*; *pulvis cretæ aromaticus*; *pulvis cretæ aromaticus c. opio*; *laudanum*, etc., etc., are only a few members of a very long list that might be made out to establish the point that the practical sagacity of keenly observant men, who watched the

effects of agents on patients actually suffering from various diseases, was not likely to be deceived in the final judgment of their utility. I do not suppose that any one of the great hundred-year-old remedies, such as mercury, opium, ipecacuanha, cinchona bark, arsenic, etc., had ever been tested by the method which many modern pharmacologists think a necessary one, viz., that of experimentation on healthy animals lower in the scale than man, before they were employed; or if they had been, that a more just conception of their range of action and utility in disease could have been formed than was formed.

Was this old method a sound one? Did it deserve the appellation "scientific," or should it be despised and discarded as empirical, in the modern and unworthy sense of that term? The question cannot be fairly answered without considering that applied therapeutics had even more precision given to them than is implied in the above statement of the method of establishing their utility, owing to the fact that, bound up with and forming part of the system, was a broad but approximately accurate classification of human beings into distinct physiological groups. Terms were used that would be strange to modern ears, indicative of a belief in great fundamental differences of constitution underlying conformity to a single type of organization; and a nice discrimination was learned, to guide the application of remedies suitable to each.

Men were classed as nervous, sanguineous, lymphatic, bilious, etc.; and what would suit the lively, hopeful, nervous patient was believed to be less suitable, or even unsuitable, to the heavy, lumpish, lymphatic or bilious one. These systems—if so crabbéd a name is fairly applicable to them—went hand in hand, and were correlatives of each other; for it had not then occurred to men of science that it would be much nearer the truth to discard all the finer sensibilities of the human spirit—if, indeed, the refined modern experimenter is willing to admit that there can be anything worthy of that name outside of what can be seen by his microscope, now that the latter has been brought to so high a degree of perfection, or that cannot be weighed in balances to which $\frac{1}{10000}$ grain is a heavy weight, or that cannot be penetrated and

made visible by electrical rays—and to consider all living tissues in their relation to medicines, whether they entered into the composition of a genius or a blockhead, a poet or a ploughboy, in terms of so many grammes or kilogrammes of guinea pig, dog, or rabbit, on which they had been experimentally made to act in the pharmacological laboratory. In fact, man was considered as a whole, and not in sections; and yet, as a whole liable to great and recognizable variations. The department spirit and departmental method, with their microscopic and exclusive attention to minute details of that whole, without any adequate consideration of the mutual relations of the several parts, had not as yet claimed the right to be alone considered scientific, as they too often appear desirous of doing now. There was a time, and that not a very remote one, when no man could be considered to have qualified as a physician in our universities until he had given some proof that he was a metaphysician also.

But all this has been changed. A study of physics has displaced instead of going hand in hand with that of metaphysics; and this has so moulded all our habits of thought that the language in which the more recon-dite morbid and physiological processes are spoken of to-day is largely that of the physical laboratory, while almost necessarily the names indicative of remedial action take much of their meaning from the processes which they are supposed to alter or control. Disturbed molecular movements, abnormal nerve-undulations, altered polarity, explosive discharges, etc., as to the existence of any of which we really know nothing, and every one of which, as explaining what we do see, is as likely to be false as true, are terms in the mouth of many a young medical man of the present day, to whom there is no longer any mystery to the heart of which he cannot get by means of the instruments of precision placed in his hands, and the penetrating intellect by which they are guided. As nothing is so likely to mislead the judgment as false analogies, and as every one of the expressions mentioned, and many more that might be quoted, are founded on analogies with physical processes that may in the end turn out to be false, it seems to me to be a pity that they

should be allowed to displace those simpler expressions which described the actual phenomena witnessed or felt, and nothing more. I am tempted to quote here words which, old though they are, have always appeared to me to have much significance in this relation: "Such is the alliance between the habitudes of mind in both departments of thought," says the author, "that we are almost tempted to say that every physician ought also to be a metaphysician. Sure we are, at all events, that a sound course of early study in intellectual philosophy—a careful analysis of the evanescent and subtle phenomena of mind—must prove of admirable service to him who would succeed in what is confessedly the most difficult of all the sciences of observation."

Even those vast changes in practice which have taken place within the past 100 or 150 years—changes which are patent to all the world, as they are exposed on the surface of our common literature of the two periods—are due to the cautious but fearless spirit of independent observation which gave us so many remedies of great and permanent value; for they were all brought about before the establishment of pharmacological laboratories and the experiments performed in them. If we consider for a moment the disuse of venesection, we shall be convinced of this. Almost all the so-called scientific demonstrations of the reasons why indiscriminate venesection *ought* to be bad have been given to us long since the time when, the independent spirit of observation of our predecessors having proved it to *be* bad, it was omitted from practice. I do not, of course, include in the list the practical observations made by Doctor Marshall Hall, on patients subjected to the process, which he published in 1830, and which soon began to produce a marked effect. So much was venesection practiced at the beginning of the century that nearly everybody, old or young, peasant, peer, or prince, was subjected to it when ill, while a very great number were bled three or four times a year to prevent themselves becoming so. "My dear Mrs. Delany," wrote Fanny Burney in 1785, "was ill yesterday, and to-day she has been much worse. The Queen sent to ask her to the Lodge, but she was obliged to be blooded, and seemed so full of

inflammation that I was extremely alarmed for her." Mrs. Delany was then over eighty. She was ill, was "blooded," at once improved, and lived some few years longer. In the same diary for the same year the King is said to have informed Mrs. Delany that the Princess Elizabeth "had been blooded twelve times in the last fortnight, and had lost seventy-five ounces of blood, besides undergoing blistering and other discipline." The Princess Elizabeth was five years old at the time of this conversation, and died sixty-five years after it. Some idea of what may have been included in the "other discipline" here alluded to may possibly be gathered from one of Cowper's charming letters of about the same date, in which he wrote: "It is happiness in poor Peggy's case that she can swallow five shillings' worth of physic a day," adding, however, with delicate humor, "but a person must be in her state to be duly sensible of it." From his frequent, grateful, and highly appreciative references to his own doctors, and his acknowledged undying indebtedness to their skill as well as their care, we may hope that Peggy's adviser was an exceptional one, and that the average as well as the highest of his day would approach nearer, both in mind and mode of practice, to the man whom he addresses as

"Virtuous and faithful Heberden, whose skill
Attempts no task it cannot well fulfill;
Gives melancholy up to Nature's care,
And sends the patient into purer air."

That some minds dissented from the general belief is, however, evident. Thus Boswell, in his *Life of Johnson*, relates that "Doctor Taylor's nose happening to bleed, he said it was because he omitted to have himself blooded four days after a quarter of a year's interval. Doctor Johnson, who was a great dabbler in physic, disapproved much of periodical bleeding. 'For,' said he, 'you accustom yourself to an evacuation which Nature cannot perform of herself, and therefore she cannot help you should you, from forgetfulness or any other cause, omit it, so you may be suddenly suffocated. You may accustom yourself to other periodical evacuations, because, should you omit them, Nature can supply the omission; but Nature cannot open a vein to blood you.' 'I do not like to take an emetic,' said Taylor, 'for fear of breaking

some small vessels.' 'Pooh,' said Johnson; 'if you have so many things to break, you had better break your neck at once, and there's an end on't. You will break no small vessels' (blowing with high derision)."

I remember as a little boy how farmers and farmers' men used regularly to come to my father's surgery—the surgery of a country doctor in an agricultural district—for spring and autumn bleedings; and not very many years before this the out-patient department of every large hospital looked on certain days of spring more like the hall of Ulysses after the slaughter of the suitors than the cleanly places of to-day. So free was the flow of blood that Euryclea and all her maidens would have had enough to do to cleanse it in time for next day's work.

Nobody will wish those days to return. Yet conjecture will be busy in her inquiries as to whether the total abandonment of the practice has been an unmixed blessing. I never yet had a house surgeon, from whatever part of the world he may have come, who had seen venesection performed. Yet lives are sometimes to be saved by the practice now, as they were sacrificed, I believe, by its too free employment then. And conjecture wonders further if it really may not have been *preventive*, as Doctor Taylor and most men of his day believed it to be. Was the spring and autumn or quarterly bleeding of the healthy body in any way a cleansing of it, as was thought? We cannot tell. Every new research proclaims to us the marvellous and unthought-of complexity of human blood, into which are pouring constantly ferments of great potency from thyroid, thymus, suprarenal, and other ductless glands, under the influence of which tissues are developed in just and orderly proportion without any extravagant overgrowth of any of them, but which probably contains at some period the elements of those more dangerous growths which, under the general name of malignant, are yearly becoming more and more common; and it is impossible not to wonder whether there may be some connection between this increase on the one hand and the absence of the periodic depuration which bleeding effected, and which, if ever of use at all as a preventive—a point which I suppose must always be uncertain—should be even more

useful now than then, because of the almost universal prevalence of meat-eating, often excessive, now as compared with then.

Any one who will carefully study papers by Doctors Wilks, Sutton, Markham, and Sir George Johnson, published in the *British Medical Journal* and *Medical Times and Gazette* at various periods since 1859, will be convinced, if he has not already been so by his own practice, that harm must be negatively done by those who will never bleed in any case, as it certainly was positively done by those who indiscriminately bled in all.

Broussais is said to have been nearly killed by a leech-bite when bathing one day with young Chateaubriand in a pool in Brittany. Later in life he revenged himself on the whole tribe of leeches, or showed his forgiveness of them, according to the light in which they viewed the proceeding, by using no fewer than 100,000 every year in his wards. Now many druggists refuse to lodge them, because they do not even pay their own expenses, much less prove a source of profit.

Perhaps nothing has served so strikingly to manifest the contrast between the old and new methods of laying a foundation for therapeutics as the discussions recently carried on in the *British Medical Journal*; and of all the papers, that of Professor, Cash may be taken as best exemplifying the spirit of the new one. In it he says that "it is neither conducive to the accuracy of pharmacological research, *nor yet of treatment*, that we should work with bodies whose constitution is not understood, and which may contain principles divergent or even antagonistic in their action." Every one would probably agree with the former part of this statement if by the words "not understood" it were implied that nothing whatever was known of the character of the drug, and that it was the merest haphazard if the name and the thing named agreed in any two instances; but it is clear that something very different from this was meant.

Is it then so unscientific as Doctor Cash's statement would imply, to use bodies whose constitution is not understood, and to associate together in the same prescription drugs which are physiologically antagonistic to each other?

Let those practical therapeutists give the answer who know the uses of opium, of digitalis, of jaborandi, and of their advantages in hundreds of cases over morphine, digitaline, pilocarpine, etc.

Take the last drug first. It affords a good example of what is often done in the chemistry of Nature, viz., the elaboration, in the same organism, of principles which are exact physiological antagonists. Jaborine, which is one of the alkaloids, is in its effects exactly like atropine. It dries the tongue and skin, increases the cardiac force, and raises the pulse tension, and, if it were present in large quantity, would wholly prevent the salivation and sweating, to cause which its associated alkaloid, pilocarpine, is given. But then it is not sufficient to destroy, though it is sufficient to bridle and control. When I read the following statement in a leading work on pharmacology and therapeutics,—"Jaborandi appears, however, to irritate the stomach, and often causes nausea and vomiting, and so does pilocarpine, though to a less extent, even when subcutaneously injected,"—I was led to wonder whether the writer had had to do with patients wholly differing in their reactions to drugs from the great majority of those who had come under my observation, or whether he had merely accepted on trust the statement from some other authority, instead of following the apostolic advice of proving all things and holding fast only that which is good; for, speaking simply from my own experience, uninfluenced by the authority of any man, I should exactly reverse the terms of this statement, substituting jaborandi for pilocarpine, and *vice versa*. Some years ago I was so much struck with the uniformity with which vomiting followed the administration of nitrate of pilocarpine in doses of about one-eighth grain by the mouth that I ceased to employ that alkaloid in its pure state except rarely hypodermically, always using an equivalent dose of one of the preparations of jaborandi in its stead, with the effect that vomiting became and has continued to be rare instead of very common.

Nor ought this to excite surprise when we remember that we frequently mix with a small dose of morphine a very minute quan-

tity of atropine for the very purpose of controlling the nauseating effect of morphine; *i.e.*, we try to imitate with regard to that drug exactly what Nature has done for us with regard to this one.

I no more believe the statement above quoted concerning jaborandi—a statement which corresponds with many another equally well founded concerning other drugs—than I expect any one to believe my statements if they run counter to his own experience, as this one does to mine. Both cannot be correct; but it is at least important that whichever happens to have the desirable quality of correctness should be adopted to guide those who, till taught by many an error, have largely to rely on what their books tell them.

As for myself, having come to the conclusion which I have stated from what I saw, and long before I read the conclusions of other people, I am not disposed to change it without better evidence that it is wrong than I have yet met with.

Then, as to accuracy of treatment, and impossibility of attaining to it unless the constitution of the bodies with which we work is completely understood: did it detract from the accuracy of treatment of myriads of malaria-stricken patients that they should have been completely cured by the employment of cinchona bark before the composition of that wonderful drug was made known? It was certainly brought to Europe and extensively used as early as 1640, whereas quinine was not discovered by Pelletier and Caventou till 1820. Bark was bark, and nothing else. It was easily distinguished from other substances by its physical characters. It was administered thousands and tens of thousands of times to fever-stricken men and women, and it cured them. By careful observation of the sick, it soon became known when it would be likely to agree and when to disagree, and what correctives it was proper to administer before or during a course of it. Was that a scientific method of studying its action? And would our wise forefathers have proved themselves still wiser if they had refused to employ this medicine until, by pharmacological research, some one had elucidated its action in the way that the

actions of new drugs are often said to be elucidated now?*

Ipecacuanha cured dysentery quite as well in 1686, when Louis XIV. purchased it as a secret remedy from Helvetius, and for the following 130 years, not till the end of which Pelletier discovered its alkaloid, emetine, as ever it has done since. Interesting though it is as a fact, the discovery of emetine has not in the least advanced treatment. Would our forefathers have shown their wisdom in refusing to employ it before a complete elucidation of its action by pharmacological research following accurate chemical analysis? Doctor Cash seems to imply that they would, for he writes: "The difficulty must be recognized and acknowledged of introducing supposed remedies directly into the service of therapeutics without a previous elucidation of their action by means of pharmacological research, which renders it possible for the practitioner to find an explanation for the benefit that may accrue from their use." In a word, unless we have studied the manner of action, our employment of remedies is apt to degenerate into a more or less pronounced empiricism, which goes no further than the assertion "It does good, and therefore I use it." And is it such a poor exercise of the human understanding to employ it in nicely discriminating the class of case in which a remedy will save life, that we are to despise it because it is called empiricism? A rational empiricism, or, in other words, the nice and discriminating application of remedies, by a sagacious and observant mind, forms the truest basis of therapeutics, call it by what name you will. The old physicians were essentially therapeutists. Many of the younger

*Of course, everything will depend on the definition of "pharmacology" and "pharmacological research." If the very comprehensive one recently issued from Cambridge, and published in the *British Medical Journal* of May 2d, 1896, is accepted, viz., that "pharmacology is the science or the analysis of the effects of mineral, vegetable, or animal substances, singly or in combination, administered to living organisms," every intelligent medical man who gives a dose of medicine to his patient, and watches carefully its effects on his condition, is a pharmacologist as much as he who watches the effects produced in the laboratory by the same medicine on dogs or cats or frogs, and some people may think a little more so.

ones are pharmacologists, and little else. The method of employing drugs is reversed. They were formerly given to the patient. Now they are often injected into the lower animals in order to "elucidate" their action, while the patient is treated with a dose of mint-water. The real value of medicines is but seldom established by such experiments.

A short time since another Liverpool physician and myself were conversing with one of the most distinguished physicians of modern times—a gentleman whom I have always regarded as the foremost therapeutist of the day. The application of a very complicated remedy (Warburg's tincture) was mentioned by him in a certain condition. The great practical utility of Warburg's tincture in the more serious malarial affections we admitted and had often proved, but "Why give it in the condition named?" we asked. The reply was, "Because I have known it do good under such circumstances." My comment made immediately was: "That is, in my opinion, a better reason for using it than could be obtained from experimenting with it on healthy cats and dogs, and thence deriving a supposed reason for employing it on diseased men and women."

But out of such an answer arises another question: Can we, consistently with claims that are being advanced for the employment of simple principles, such as alkaloids, instead of the infusions and other galenical preparations of the plants from which they are formed—can we, I ask, continue, as scientific medical men, to sanction the employment of such a drug as Warburg's tincture at all? One of the changes urged on the Revision Committee was what I have stated: Discard galenical preparations when alkaloidal or other simple principles can be procured. Discard, for instance, digitalis; and sanction, by your authority, the use of digitaline alone. Let us no longer have any preparations of *nux vomica*, now that we possess strychnine. The soundness of this advice must be brought to the test of practice, which, in all such questions, can alone ultimately decide it.

Referring for a moment to Warburg's tincture, with its quinine, aloes, rhubarb, angelina seeds, saffron, fennel seeds, prepared chalk, gentian root, cubebs, myrrh, camphor, etc.—for such were found to be *some* of the con-

stituents when, in 1873, Professor Maclean of Netley published its formula—we seem to be carried back three centuries to the days of William Bulleyne and his “bulwarke of defence against all sickness,” when such complicated formulæ were common enough. But for men on the verge of the twentieth century of the Christian era, men from whose minds the shackles of prejudice and empiricism had been broken, to sanction such messes, seemed to the younger self-styled scientific race of pharmacological physicians—at least to such of them as had never themselves suffered, or experienced their powerlessness to relieve by any other means those who did suffer, from the more malignant forms of malarial disease—so absurd that much merriment and not a little juvenile and middle-aged scorn were directed against Professor Maclean, and, through him, against aged and credulous people in general, for encouraging the superstition. Yet the superstition lingers on, and no Indian officer of the present day will long expose himself to the jungle in pursuit of his favorite amusement of running down and killing the powerful and ferocious beasts that dwell in it, without carrying in his pocket a little bottle of Warburg to protect himself against the attack of a prey more fatal even than they.

I mentioned a conversation held with, perhaps, the most distinguished of living physicians, in which he bore his testimony to the value of the drug. There is the further testimony of Doctor Lauder Brunton to its value, and the still later one of Shoemaker, who, in each of the three editions of his work on *Materia Medica and Therapeutics*, of which the latest was published last year, speaks of it as long “highly prized in England in fevers and in shock and collapse,” adding that “in severe cases of poisoning by malaria, large doses are absolutely necessary to save life when given by itself, but, when given in the above combination, much smaller quantities are found to answer the purpose.” What is meant by “the above combination,” as it has an important bearing on the two principles of therapeutics which I am contrasting, will be alluded to directly. I wish first to direct attention to a significant addition in the reference made by Doctor Lauder Brunton in the third edition of his work,

which convinces me that practical experience is proving itself to be an adequate guide at least in this instance. The notice in the first edition was simply as follows: “Warburg’s tincture, containing quinine and a number of aromatics, is very useful in cases of collapse from various causes.” In the third edition the words are, “is very useful in cases of ague, in doses of one to four drachms, and of collapse from various causes in doses of half an ounce.”

By “the above combination” is meant the preceding use of a brisk purgative. The words establish the value of observation on the sick as a basis of treatment, for it was solely from this kind of observation that our wise forefathers determined that to clear the intestinal canal was often an absolutely necessary preliminary if this bark was to do good rather than harm; and I do not know how the essential importance of such an empirically established fact could have been determined by any other method: and it will certainly remain just as important as it always has been, and will be made neither better nor worse as a fact, whether Lussana’s ingenious conjecture that the malarial poison especially circulates with the bile in the portal system can be proved to be true, or not.

If it does not conduce to accuracy of treatment that we should work with bodies which may contain principles divergent or even antagonistic in their action, we must give up digitalis and its two galenical preparations on which the old therapeutists have depended, for digitaline, or some other principle contained in the plant which the new therapeutists demand. For digitalis contains not only the vaso constrictors, pulse-tension elevators, and heart-tonics, digitaline and digitoxin, but their exact physiological antagonist digitonin, which lowers arterial tension, dilates the small vessels, and weakens the force of the systole. The pharmacopœias of 1864 and 1867 contained digitaline; that of 1885 left it out. Practically it was inferior to digitalis, partly from its instability, partly from the risks attending its employment. Now, in the year 1896, we are positively informed by one author “that digitoxin, and not digitaline, is the only recommendable preparation of digitalis purpurea;” and by another, that by giving galenical preparations we run the serious

risk of producing in our patients "effects the very opposite of those which we desire." Yet it is a striking fact that very many and probably a steadily increasing number of observing men prefer a freshly made infusion of digitalis to any other form, although this is said to contain a larger proportion of digitonin than any other. If this preference is well founded, as I believe it to be, it is only another proof that the presence of a physiological antagonist in sufficient quantity to control and moderate, but not neutralize, the effect of the principal agent, is an advantage instead of the reverse.

But of all the drugs that can be brought up as witnesses against much that modern pharmacology would teach us, none is so powerful as opium. Almost as complex in its composition as Warburg's tincture, or any of the formulæ of the seventeenth-century pharmacopœias, and with principles almost as physiologically antagonistic as those of jaborandi or digitalis, its great value was firmly established by clinical observation long before chemical analysis determined the complexity of its constitution, and it continues to hold the same place in medical men's esteem, even though pharmacology has established the conflicting nature of its components. Eighteen or nineteen alkaloids, among which morphine, codeine and narceine form a little group whose main action is narcotic; in antagonism to which, paramorphine or thebaine plays the part of a convulsivant, papaverine acts in both capacities, and narcotine, as Sir William Roberts and others prove, is powerfully antiperiodic; three neutral principles, one or two peculiar acids, besides a number of less active substances,—this is what we give when we prescribe opium; and yet we know sufficiently well the resultant effects of these associated agents to prescribe it with confidence, and to feel sure that it will answer our ends far better than if (misled by the demand for simplicity and non-antagonism) we tried to replace it by morphine or any one of the alkaloids alone. In the nervous and physical prostration of sudden hæmorrhage, who of us would give morphine when opium was procurable? I am not going to speculate as to whether the more general good resulting from the combination may not be really *due* to the antagonism. It is enough

for me that the complex body is better in such cases as I have mentioned than either of its constituents; and until pharmacology can prove on the body of a sinking patient that I *am* wrong, rather than on the body of a living dog or cat that I *ought* to be, I shall respectfully beg to go on in the old way.

Indeed, the perversity of the ancient medical mind in its preference for testing drugs and combinations of drugs on diseased men rather than on healthy dogs was shown by the actual addition to such an aggregation of principles as is found in opium, of that further great aggregation of principles which refined modern analysis has proved to exist in ipecacuanha; and the imagination is, at length, absolutely bewildered when it tries to picture the conflict of atoms, molecules, alkaloids, glucosides and acids that takes place when a compound ipecacuanha powder is introduced into a human stomach. Published first in the Pharmacopœia of 1787, it has been retained in every one of the succeeding nine editions, and is likely to be retained as long as pharmacopœias are necessary evils, or as long as the delightful mixing up of the seasons characteristic of our happy island exists, when January and May, mistaking the order of their succession, are apt capriciously to take each other's place; and poets, who ought to know better, delude us into the belief that the latter month is warm and mild and genial. During all that time men will experience the uncommunicable wretchedness which a concentration within their unhappy persons at one and the same moment of stopped noses, aching heads, shivering spines, and suppressed perspirations can impart; and so long will they, after proving the sudden and almost magical change of all this misery into tranquillity and delicious slumber under the influence of one of his powders, bless the name of Doctor Dover, and believe that the "Ancient Physician's Legacy to his Country," in which more than 160 years ago he first published his formula, was as great a blessing to mankind as if that formula had been elaborated by the utmost ingenuity of nineteenth-century pharmacology.

To give another illustration of the contradictory conclusions to which experimentation on living and healthy animals may lead us if

trusted to alone, let me draw your attention to what has been done recently to "elucidate" the action of purgatives.

Many years of observation of the effects of purgatives on a constipated people like this of Great Britain might well have been taken as establishing, for all practical and useful purposes, how they act. But no! Observation on diseased men, women, and children—the subjects with which we as medical men have to deal—was not exact enough for the modern scientific mind. Thiery and others, therefore, isolated pieces of the intestine of dogs, sewed up one end, projecting the other through the abdominal wall, injected or administered medicines; and after these cruel experiments, which could not be otherwise than misleading, considering the unnatural conditions under which they were performed, and their absolute unlikeness to any that come under the notice of medical men, came to the conclusion—a conclusion accepted at once, we are informed, by "many leading German pharmacologists"—that "the more watery stools produced by many purgatives are due only to more rapid peristaltic action, which hurries along the intestinal contents before there has been time for the absorption of their fluid constituents."*

But no sooner had this conclusion been come to, and accepted as final by "many leading German pharmacologists," than Colin, Moreau and others performed other experiments on other dogs, involving more suffering, and came to an entirely different conclusion. Increased secretion, as well as increased peristalsis, was now said with equal confidence to be the proximate cause of watery stools. Is there a single medical man who has ever been, or is ever likely to be, assisted in his practical work by experiments and conclusions such as these?

One more illustration of a contradiction, which is not creditable to a method that assumes to be scientific, to the exclusion of what I hold to be the really scientific and trustworthy one of close observation of the effects produced by drugs on diseased individuals, and I will leave the subject.

"Elaterin . . . only acts as a purgative

when taken internally, and appears to require bile in order to act. When injected subcutaneously it acts on the nervous system, causing salivation, insensibility, tetanus, and dyspnoea."* "It"—elaterin—"purges when injected hypodermically, but to obtain its full effects it must be mixed with bile."† Now, as both of these conclusions must presumably have been based upon experiments on the lower animals, as none mention the hypodermic administration of elaterin as a part of medical practice, it is extraordinary, and by no means calculated to beget confidence in the method, that they should lead to statements so contradictory.

The therapeutics of a hundred years ago were at least practical, and much of them may be summarized in Sydney Smith's recommendation to Godwin as a cure for his philosophical aberrations on the subject of reducing over-population. "In gratitude for these noble remedies of social disorders," he wrote, "may we take the liberty of suggesting to Mr. Godwin the infinite importance of shaving and blistering the crown of his head; of keeping the *prima vie* open; and of strictly pursuing an antiphlogistic regimen? By these means we have sometimes seen the understandings of great philosophers wonderfully and rapidly improved."

We have advanced very much since Sydney Smith's time. We have learned clearly how to distinguish from other diseases, and how at once to relieve the malady—thoracic effusion,—which caused his death; we have learned or are learning the great potency, and how precisely to control the influence, of animal ferments in their maintenance of a healthy balance between the various tissues; such, for example, as Mr. Victor Horsley's proof of the value of the thyroid ferment in myxœdema, or of that worked out by Doctor Charles Macalister, of this city, who, from a consideration of the facts that pseudo-hypertrophic paralysis seldom or never begins after fourteen, and that the thymus gland disappears at or about that age, conceived the idea that the effect of thymus secretion when

* Brunton: Pharmacology and Therapeutics, third edition, page 929, 1887.

† Shoemaker: *Materia Medica, Pharmacology, and Therapeutics*, page 601, 1891.

* Brunton: Pharmacology and Therapeutics, third edition, page 390.

poured into the blood might be to restrain connective tissue from growing out into excessive luxuriance, applied the principle to children suffering from the disease in question, and cured them. And it does not seem clear how the proofs could have been established by any other methods.

We have learned or are learning how by means of antitoxins some of the most malignant of the infectious diseases can be brought under control by the application of principles akin to those which were first applied by that noblest of noble Englishmen, the anniversary of whose great discovery we celebrate this year. And yet the principle underlying this antitoxin treatment seems itself to have been discredited by doubts based on supposed scientific reasons no later than 1886 by one of the leading pharmacologists of the day.* The proof of its utility, established by its actual and successful application to disease, has removed the doubts, and now there are as many scientific reasons why it ought to succeed as formerly there were why it ought not.

We have learned or are learning the great influence of antiseptics on disease.

The future is full of promise. Phthisis is diminishing under improved hygiene; and although the hopes of its being successfully attacked by medication, which were raised a few years ago, have been temporarily disappointed, it is not likely that the disappointment will be more than temporary. Cancers, in all their forms, seem yet to defy attack; yet there are not wanting indications that they also will eventually be overcome. For all the great work that lies before us, a wise combination of sagacious and patient observation of disease and the remedies which influence it on the one hand, and of cautiously conducted laboratory experiments on the other, is essential. Neither method can afford to despise the other; but each one, in a spirit of humble and reverential desire for truth concerning this great mystery of human life in all its manifold phases, should go hand in hand with the other, each assisting the other in its great aim of elucidating the mysteries of disease, and of relieving human suffering.

Liverpool, England.

MEDICAL LEGISLATION VS. EDUCATION.

BY E. B. WARD, M.D.

Truth crushed to earth, tis said, will rise;
But time has shown a feeble plant,
While error paints the lurid skies
And makes of truth a suppliant.

The able, interesting, exhaustive, and instructive article by Doctor Mullen in *THE MEDICAL AGE* of August 25th is worthy of perusal by every reader, professional or otherwise. It is a careful compilation, as well as an expression of individual opinion, read before the Texas State Medical Association on the subject of "Medical Education: Its Defects and Perversions."

The trouble is, and has been, with all writers upon this subject, that they look at it from so many different standpoints, and too many of them consider the matter as it should be and not as it is. They don't get down to "rock bottom."

Without attempting to exhaust the subject or the reader, I will premise by saying that twenty-eight years ago I had the honor of introducing a bill into the Legislature of Michigan, and I have watched the progress of medical legislation ever since. That bill was mild, and was handled—supposedly—by the intelligence of the State, but it came back like the Irishman who went to a wedding, and returning shortly after met a group of his friends who hardly knew him on account of his mangled condition.

"Where've you bin, Dinnis?" inquired one.

"Bin to a weddin'."

"You mean a wake, don't you, Dinnis?"

"No, begorry, it was a weddin', an' I marched up to the dure, an' a flashy dressed chap in a white vest an' blue coat opened it, an' I says, 'Well, who be yez?' 'O'im the bist man,' says he. 'You're a liar,' sez I—but he was."

So with that poor bill, which would have been of more absolute benefit to the people of the State, if executed, than any other bill on the calendar. They riddled it with amendments until I wouldn't vote for it myself, and finally jumped on it in every way—and this in "higher educated" Michigan. There is a bill pending now in the hands of Detroit physicians, I understand, but according to the

*Lauder Brunton on "Disorders of Digestion."

best of my knowledge and belief it will be still-born when it passes the Legislature. Further, it is a profound question, even if we had a law, whether it would not be inoperative. When quackery thrives in France, and charlatans are preferred to the regular physicians; when Germany is said to be filled with doctors "possessing a wonderful amount of learning but an entire lack of common sense," and all amply protected by law—what can be expected in this land of over-much freedom, where the blatant anarchist and socialist tread on the heels of men of education, refinement, and culture?

Men of intelligence and education in other matters consider an education unnecessary in a medical man. Twenty-five years ago, or thereabouts, the president of one of our State beneficiaries of learning employed as family physician a quack doctor, and a female at that. One of those law-makers at Lansing said to me privately, "Why, death follows in the wake of you graduated physicians!" He believed in "natural-born doctors," and the belief is prevalent. Mark the "faith healers!" They don't get the ignorant, but the wealthy and educated, and their number is increasing—one recovery over-crowning half a dozen unfortunate terminations. This is their religion, and this is a land of religious *liberty*! How is a law to reach them?

Observation and experience compel me to say that I have no faith in medical legislation—not a particle; and in fact, if too stringent, such laws only stimulate quackery. What can be done to stop quackery? Put a medical college on every four corners? We are coming to that already. Provide teachers to deliver medical lectures free and so educate the masses in the fundamentals of medicine? Stop educating the classes by taxing the masses—let medical education be free, and then the man with the most common sense, a good education and robust health will do good practice. But the masses run to the marvellous, and do so *love* to be humbugged that quackery will thrive to a greater or less extent until mankind ceases to be sick. My impression is that a majority of the "doctors" throughout the land who are doing a paying business to-day are either regular or irregular quacks. They are here

for what money there is in it, and the devil takes the hindmost.

No one need despair, whatever his position or previous occupation or acquirements. A prominent physician in a city in this State began his career as a shoemaker in the same town; he deals with the last of people now, but it is their last hours. Another was a tailor. But never mind, the list is endless.

Correctly speaking, the medical man should be bred to the business from his youth up. You can't take him from the plow or out of the shop, or even the school-room, at middle age—past thirty years—and make a doctor of him of the proper brand. Men don't gather figs from thistles even in these days of change and transformation. I can tell one of those half-baked doctors as far as I can see him walk.

National supervision, as Doctor Mullen says, offers about the sole remedy for this condition of affairs, but the editor of *THE MEDICAL AGE* of the issue before mentioned knocks all the consolation out of us in that direction by an article on "Medicine in France." Yes, I am infidel on the subject, and wouldn't snap my finger for the enactment of a law by our Legislature to regulate the practice of medicine—and, by the way, I don't think a medical law will be enacted, so it is unnecessary for any one man to dictate as to what shall and shall not enter into the composition of such a law. Right here it would be pertinent to inquire how many of these men live up to the Hippocratic oath? How many know what it is, even? It is to be hoped that they all do.

Finally, if any man thinks he knows more about this matter than I, he needs to trot out over forty years' experience in the practice alongside of villainous and unscrupulous quacks, also an extensive acquaintance with the leading physicians in our land, coupled with close observation of men and things; but he will need to go back of the time of Moses, or I shall pick out his mistakes.

Let us then be up and doing
With a heart for any mate,
Still combating, still pursuing
Microbes on the dinner plate.

Laingsburg, Michigan,
September 1st, 1896.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., NOVEMBER 10th, 1896.

Editorial.

SEXUAL PHYSIOLOGY AND AGE OF CONSENT.

(Continued from page 627.)

Reform has no place in the schemes of these people possessed of "missions"—only notoriety. There is nothing logical or rational in their procedures. Universal continence is demanded, not as a result of moral education, but in the form of a command shorn of both rhyme and reason; they seek to stem the demands of Nature, that are more powerful than the relentless waves of the sea; their path as outlined by themselves is held to be very beatific, but is decidedly irritating to people possessed of average sanity. To-day, to quote the words of a recent contributor to this journal, "our penitentiaries contain more innocent men convicted of criminal assault than all the other innocents there incarcerated multiplied together." The testimony of the female is invariably accepted beyond its true value, and beyond that of the male, in every court, and the court itself tacitly admits the assumption that in seduction the male must necessarily be alone at fault; and yet one of the greatest and most successful *roués*, a man who in his day was the particular pet of society, in old age was wont to assert he never made the first advance to any female; and there is reason to believe that this is in great measure the truth as regards most educated and finer bred men. Thus the law itself, as interpreted, places a premium upon crime, places a premium upon blackmail, and the reformers who insist upon continually raising the age of consent with each increase thereof, only succeed

in multiplying the injury*—the remedy in its results is invariably the greater crime.

What can be expected of the relations of girls and boys of tender age, often not yet fairly in their teens, who are permitted to perambulate the streets in company at all hours of the night—a disgrace that is to be seen in any city almost of the United States, and the rule rather than the exception among most classes of society? Recently a writer declared that not one girl in a thousand reached the age of seventeen without being initiated into the mysteries of Venus—a statement that met with a storm of denunciation from the general press; and yet every physician knows that the statement, though doubtless somewhat exaggerated, is not nearly so far-fetched as at first appears—change to read "not one girl in a thousand of those in their teens who are allowed to run the streets nightly and consort at will with the other sex," and the exaggeration is reduced to a minimum. Gonorrhœa is by no means uncommon in children of the most tender years. Girls not yet thirteen years of age assiduously court the attention of boys of greater age, and even full-grown men, in the interval meantime perhaps amusing themselves with youth of more tender years. To-day the lad who reaches puberty without having suffered sexual pollution at the hands of some female, or from solitary vice, is certainly a *rara avis*, and it is reasonable to suppose that amongst the bulk of the population the girls are no more immaculate.

*How ultraism and bigotry defeat the very aims of reformers, is seen from the following clipped from a London (England) morning paper: "The social purity agitators have received another setback from the licensing committee of the London County Council. On Wednesday and Thursday the committee took action on the applications of the various music halls for licenses for the ensuing year, despite the objections advanced by members of the Social Purity Society. . . . Each woman who appeared in opposition before the committee this year said that when she visited the promenades in search of evidence, she herself was the only respectable woman there, a statement that was so sweeping in its characterization that it did not meet with belief. The men who testified in behalf of the society gave evidence similar to that of the women. Their manifest self-conceit and self-righteousness had a bad effect upon a majority of the committee, and, despite their evidence, the licenses were granted."

Within a stone's throw of the residence of the writer, two girls of the same family have each, within two years, given birth to illegitimate children, and a third will be a mother perhaps before the ink of this journal is dry—all will have suffered the pangs of maternity before reaching the seventeenth year. All had been allowed by a foolish mother to race the streets; and this parent sought to coerce into marriage three young men who, instead of being seducers, were really seduced, and were by no means the sole recipients of sexual favors on the part of the unfortunate adolescent females. Would the raising of the age of consent have saved these girls? Certainly not, though it might have entailed a prison cell as an unjust penalty upon three young men. The law cannot usurp the place of the parent, and must not be expected so to do, though it might aid in keeping the immature of both sexes off the street. The only fault in this instance, as is too often the case, lay with the mother, who spent the hard-earned wages of an estimable husband upon finery to be exhibited upon the backs of her silly daughters, and encouraged them to gad the streets and flaunt their bravery and virtue in the faces of equally ill-trained young men. The seduction in each case was more on the part of the female than the male, since the latter were given every opportunity, and the former were only too anxious to part with that which they did not esteem; and yet the laws as constituted hold the male alone culpable.

Again, it is notorious that in the cities there are annually trained by parents and others a large number of young girls for immoral purposes, not alone to secure revenue by ministering to illicit passions, but also for purposes of blackmail; and the age-of-consent laws are made subservient thereto, so that with every increase of the period of legal childhood there is a vast increase in crime. These laws by enlargement have not only increased crime, but stimulated new and more degrading crimes and more frequent commission of old crimes, and by placing a premium on other crimes have wrought more evil than good.

The animal is the strongest of all passions; man is weak, and by inheritance through long ages and by his peculiar associations

with the female he is more susceptible to this passion than almost any other form of life. Woman is weak, but not to the same degree—while not so strong physically, she is stronger mento-sexually; and therefore protection should be accorded the male equally with his paramour. Woman is apparently over-protected in order to permit her to prey upon man. Thousands of young boys are ruined by girls who are older or mentally stronger, but the law (except in a few countries in Europe) winks at this, while the reverse is made a high crime. It is a fact that prior to the age of puberty girls are generally more immodest than boys, and are wont to entice the latter—*i.e.*, they seem destitute of modesty and to be actuated only by animal instinct. It is well known that "daughters twelve years of age" are often precocious sexual perverts. Again, girls in their teens often lead astray boys before the latter have reached puberty, and these girls are by no means of the lower or servant class. Recently in a Massachusetts village a girl of eighteen, of one of the most refined families, took unto herself a boy of eleven, because she thought him too young to possibly be a father, but herein she committed an error and ultimately was obliged to leave home to hide her shame, her infant subsequently being adopted by her mother as if it were a stranger!—Such are by no means isolated cases.

Thus there are two sides to every question, a fact seldom recognized by ultra-reformers. The demand is not for more laws as applied to the sexes nor for more severe application of the laws, but for measures that will compel parents to do their whole duty by their children. If they will not do this duty, and if they cannot be compelled to perform it, manifestly the children must suffer for the sins of their parents, inasmuch as they are literally upheld in ill-doing by *quasi*-parental sanction. This is not a question to be decided by those possessed of "missions," by the sexually disappointed, nor by the sexual pervert; it represents laws that have existed since the beginning of the world, that are superior to the enactments of man, and trifling with which will inevitably bring its own punishment.

The present legal enactments are, in some

States, most unfortunate, and, as already intimated, offer a premium for their violation. The first principle of law based upon English common law is that "all persons are to be held innocent until convicted of the contrary." But in the majority of instances guilt is assumed from the outset, and this is affirmed not only by a sensational public press, but by the machinery of the courts which bend every effort to conviction regardless of fact; and invariably the burden of proof, which properly rests with the prosecution, is transferred to the shoulders of the defendant. The police, organized ostensibly as the guardians of both the people and the law, and expressly that they may, in conjunction with the courts, conserve the rights of the individual, are permitted to assume the rôles of both prosecutor and persecutor; they sedulously suppress all evidence except that which tends toward conviction, and lay undue stress upon the latter, even suborning testimony to meet their own ends—such pernicious and relentless activity is deemed necessary to the *esprit de corps* of the constabulary. Again, the public prosecutor, for the same reason, seeks to win his case at all hazards; we have known one such to deliberately suppress the evidence that would have proved the prisoner innocent of murder as charged, and thus put the people, whose sworn officer he was, to the expense of a second long and expensive trial—and this he justified on the ground it was his "duty to win at all hazards." Thus the accused is not only unaided in his attempts to prove his innocence, but is hampered in every possible way—this is one of the curses that obtain to so-called "practical politics" and the placing of political henchmen, regardless of ability or character, upon the bench; that also recruits the municipal police from the very lowest grades of society, often from the ranks of criminals themselves.

The charges of rape and assault are all too frequent, as are likewise the convictions on such charges. The impecunious innocent has absolutely no recourse save such as may be furnished by accident. In this nineteenth century it is almost too much to ask of reasoning and reasonable people to believe that a pure and virtuous woman will voluntarily make a complaint that will forever, owing

to license and undue publicity, damn her socially—that will necessitate her running the filthy gamut of the courts and a sensational public press. Notoriously, charges of this character are brought about for personal reasons, usually blackmail, and the degree to which they are frequently fostered by the minions of the law leads irresistibly to the conclusion that there is somewhere a division of spoil. Often the secret is to be revealed by the woman's hatred, for it has been aptly said:

"Hell hath no fury like a woman scorned."

While the plea of assault may be recognized as in some measure a just one, it is made the cloak for a great deal never intended to be covered by the law applying to such a crime. More prolific of injustice than all, perhaps, are the charges of rape, which is held among the highest of crimes, and in some commonwealths claims the extreme penalty—a crime that to-day is mooted by the ablest physiologists and jurists: there are several cogent physiological reasons that support the claim that rape upon a woman in full possession of her senses is a physical impossibility—that it can at most be but an assault. Nature herself has thrown such safeguards around the commission of a crime of this character as to make it practically impossible, a fact that was recognized for centuries in the jurisprudence of Europe. Our readers will not forget the lesson taught by Maria Theresa by means of a sabre and scabbard, and that had centuries before been exemplified at the court of France through thread and needle.

Associated with sexual crimes is the question of prostitution. This has before been discussed in these columns, and there is little to add except that its tolerance, or intolerance, and the attempts at its suppression, are alike the outcome of ecclesiasticism rather than physiology or pathology. It is an impossibility to reform the entire world; it is an impossibility to raise the adult of little education and of gross animality above the condition in which he is placed, and attempts at repression of such animality cannot but be attended with most untoward results.—Note the evidence afforded by history of countries devastated by wars and overrun with soldiers. Prostitution is a matter that is touched

upon far too lightly by all moralists. Little is said except in denunciation and as an argument for repression. Deemed a filthy subject, the questions of demand and of its economic relations are sedulously ignored; but the sewers beneath our streets are no less necessary because filthy, and they afford an escape for a current of filth that repressed would jeopardize all society. Prostitution is the sexual sewer, the outflow of debased animality which, having arisen from an instinct implanted simultaneously with life, is beyond the reach of the laws of man, except as the latter may be made to direct its current in the interests of the communities. Then why should it not be recognized and given its true status? Notoriously every effort made in the interests of so-called morality have been attended by failure. The greatest errors that arise from this question are those which seek to ignore yet are forced to permit it to rear its head in unbridled license. Since, then, prostitution cannot be done away with, it should be subjected to such repression as may best be found to keep it within commensurate bounds.

EDITORIAL NOTES.

"What is the Decomposition?"—

"The following prescription," says *The Scalpel*, "was made up from a veterinary work, and corked in a bottle:

Glycerin, 2 ounces.
Potassium permanganate, 4 drachms.
Water, 3 ounces.

"The bottle became suddenly hot to the hand, and exploded with great violence, but fortunately did no personal injury, though the damage to property was considerable. It was fortunate the quantities were not larger."

From our standpoint we should imagine the chemical action induced by the glycerin and potassium permanganate resulted from the rapid evolution of the oxygen. This is by no means an uncommon veterinary prescription, but usually the caution is added to allow to stand in an open vessel until cool.

Taka-Diastase.—

This has become the main reliance of the profession as a remedy in indigestion, inasmuch as

farinaceous foods constitute the bulk of all dietaries' and this corrects difficult or impaired digestion of starchy substances.—*Medical Review*.

Aye, and it will do more than that; it corrects difficult or impaired digestion of the proteids as well. It will also do what pancreatin and pepsin are purported to accomplish, and with a great deal more certainty. It is not, however, a remedy that can be prescribed in miscellaneous, slipshod fashion; the physician must study his case and must arrange the quantity and time for dose accordingly.

Calomel.—

It is almost impossible to take up a medical journal that mentions the use of calomel without finding that it is advised to be employed with sodium bicarbonate; sometimes bismuth is added.

Can any one give the *rationale* of employing sodium bicarbonate with mercurous chloride? It certainly inhibits its action and is not in the least desirable; and if those who prescribe bismuth did but know it, such a combination is not only incompatible but unphysiological.

A Modern Janus.—

Under the caption "Another Double-headed Bryan," the *North American Medical Review* delivers itself of the following:

Mrs. Bryan, of Macon, Georgia, gave birth last week to a baby boy with two heads. Both heads are perfectly developed, and are joined together on the back so as to place the faces in opposite directions looking to the back and to the front. The physicians say there is every prospect of the child living.

We wonder if the *Review* intended to give this item political significance.

Goitre and Thyroids.—

It is said that Bauer, of Berne, Switzerland, has just completed a voluminous report of a thousand cases of goitre, from the Alps and Pyrenees, successfully treated by thyroid.

Aconitine Preparations.—

Professor Hobart A. Hare very properly insists that normal liquid aconite is superior to aconitine for internal use, on account of the uncertainty of strength of the latter.

Items and News.

The Sand Bath as a Cure.—

The Mohammedans, in their ablutions, replace water by sand when needful. This religious practice has, it appears, become an element of modern therapeutics. At the recent reunion of Swiss physicians, held at Ouchy, Doctor Suchard read a paper on the Sand Bath. Invalids have been completely or partially cured by sand heated to a temperature varying, according to the cases, from 45° to 60° C. The sand, containing air between its particles and being a bad conductor of heat, transmits the latter in a gentle and almost insensible manner. Perspiration is favored up to the point where a patient may lose two quarts of liquid in one sand bath. Thanks to this evaporation, the invalid may support continued high temperature without the actual temperature of the body rising more than a few degrees, and this without fear of heart affections, if care be taken to put hot sand on the feet at the outset. The number of ailments that may be treated by this powerful curative agent is considerable. In the first place, it is especially beneficial in chronic rheumatism and in gout. Neuralgia and sciatica are cured or benefited by local or general baths. The most varied organic troubles of the nervous system, cardiac or digestive affections, have been treated by this method, sometimes with remarkable success. The same is true of tuberculous affections of the bones and joints. The account given by Doctor Suchard contains statistical tables relating to more than one hundred patients.—*Cosmos*.

Artificial Diamonds.—

It was shown three years ago, by Moissan, that when iron was saturated at 3000° C. with carbon, and then cooled under high pressure, a portion of the carbon separated out in the form of diamond. It occurred to M. Rossel that the conditions under which very hard steels are now made should also result in the formation of diamonds, and an examination of a large number of samples of such steel has shown that this is really the case. The diamonds are obtained by dissolving the metal in acid, and then subjecting the residue to the action of concentrated nitric acid, fused potassium chlorate, hydrofluoric and sulphuric acids, successively. The crystals are very minute, the largest being only half a millimeter in diameter, but they present all the chemical and physical properties of true diamonds.—*Nature*.

We All Wrote It.—

One of our exchanges originated one of the brightest sayings of the year, which is to the effect that, "There are three companions with whom you should keep on good terms—your wife, your stomach, and your conscience," but the editor failed to get his wisdom copyrighted, and as a result a number have reproduced it, often without credit. Hence we now have this good advice attributed to no less than half a dozen journals. The question now is, "Who killed Cock Robin?"—*Practical Medicine*.

[As the aphorism is six hundred years old, it is not very important who is the author. It has been attributed to Boccaccio, Balzac, Madame de Staël, and Alexander Dumas.—Ed.]

Doctors' Schemes.—

There are some practitioners who seek a large number of patients above all, thus holding more to quantity than quality. They do not inquire whether their clients will pay, but seek constantly to increase the number, with the tiresome instinct of a doctrine of general average, and that a large sum must accrue from a large mass. This is a shameful method of conducting an honorable art. Shall the honest practitioner be the slave of the ignorant crowd? He is their dupe and often their victim. A crowded office is no sure index of a paying practice.—*Cincinnati Lancet-Clinic*.

The Value of Therapeutics.—

If the study of pathology means the neglect of therapeutics, so much the worse for pathology, and so much the worse for schools which make pathology their leading feature. The man whose interest in his patient ends when he finds out exactly what ails him, ought to be in some other line of work than the practice of medicine.—*Medical Sentinel*.

Oldest House in the United States.—

This is at San Augustine, Florida, and occupied by Doctor Carver. It was built in 1562, before San Augustine was founded, as a Spanish monastery. Doctor Carver has surrounded himself with a collection of antiquities connected with the history of Florida and its Spanish rulers that is in itself a veritable museum.—*Exchange*.

Et tu Sancte Ludovice!—

A St. Louis contemporary says that Chicago has seventeen medical schools—nine regular, six homœopathic, one eclectic, and

one "physio-medical;" it must be quite a distinction there not to be a "professor." This, coming from the city sacred to embryonic and moribund medical colleges, is too much.—*Medical Standard*.

Leucorrhœa and American Women.—

Not only do our women have leucorrhœa to an unprecedented extent, but they suffer from the many other forms of disease of the various parts of the sexual apparatus, more than women of other countries. How to account for this is perhaps a question, but such are nevertheless the facts.—*New England Medical Journal*.

Sound Logic.—

During the war, when a man was wounded, the wound speedily became infested with germs and even insects, but no one thought of proclaiming that these germs produced the wound. What is true of the wound is equally applicable to other germ-producing diseases.—*Medical Brief*.

A Cool Bed.—

Those who sigh for cool resting-places in warm weather, and yet cannot give up their soft beds, can gain what they want by laying heavy white awning canvas under the sheets. So cooling is the effect that those who try it will be obliged to remove it on a cool night.—*Moody's Monthly*.

Reducing the Death Rate.—

The death rate in Chicago is going to be materially reduced, not by the introduction of needed sanitary measures, but by estimating the population of the city at a much higher figure than hitherto.—*Medical Record*.

Hear! Hear!!—

A more thorough knowledge of the relations of sexual organs to growth and health should be inculcated in medical schools, inasmuch as their indiscriminate removal has become most popular.—*Exchange*.

A Novelty.—

This is a pencil provided with a tiny electric light at the end, supplied with current by a pocket battery, in order to enable one to make notes in the darkness.

Hypnotism.—

When it is not a pernicious fraud it is a mere fatuity which should have no place in the life of those who have work to do in the world.—ERNEST HART.

Book Reviews.

IN THE WAKE OF KING JAMES, OR DUN-RANDALL ON THE SEA. By Standish O'Grady. Cloth; 12mo; pp. 242. Price, \$1.25. J. B. Lippincott Co., Philadelphia.

This is one of the delightful books of the year. Though there is no preface or introduction, it manifestly is based upon one of the many traditions that are harbored by the inhabitants of the west coast of Ireland. A young officer in the service of William and Mary, after the suppression of the rising in behalf of James II., is invited to visit his Jacobite cousins at Dun-Randall. He accepts the invitation in the spirit in which he supposes it was given, only to discover that he has been lured to the wildest and most lawless portion of Ireland, with the intent to despoil him of his wealth and finish with his ignominious death. He finds a captive in the person of a fair maiden whose brother has mysteriously disappeared, and who has been torn from her home, and her tenants harried of their all by means of rack, torture, and forged documents, she being destined to be the bride of Dun-Randall. Accident, however, secures the escape of the couple, chiefly through the efforts of the maiden; and incidentally appears a most wondrous and delightful description of caves, isles, and the wild and weird scenery peculiar to the west coast of Ireland. Ultimately the maiden secures a following, who under the leadership of her foster-brother and her lover—for so the young Williamite has become—penetrate the vaults of Dun-Randall, release the maiden, who has been recaptured and is on the point of being subjected to the rack, and also her brother, who is found chained in a dungeon. Finally the iniquitous rookery, with all its household and following, is blown into the air by firing the barrels of gunpowder that had been concealed in the foundation for purposes of rebellion.

From the first the author holds the interest of the reader, and *finis* comes all too soon—the best possible test of a book. As a whole the volume is a valuable contribution to the history of a time when religion and royal legitimacy raised the hand of brother against brother, and of son against father. This is almost the first exploitation of the legendary history in which the little known country, the west of Ireland, is so rich. Mr. O'Grady is to be congratulated upon the success he has achieved in this field.

THE PRACTICE OF MEDICINE. By H. C. Wood, A.M., M.D., LL.D., and Reginald H. Fitz, A.M., M.D. Cloth; 8vo; pp. 1088. Price, \$6.00. J. B. Lippincott Co., Philadelphia.

It is a delight to pick up a work devoted to the practice of medicine which, instead of being a mere collation, is wholly original. This is but the second book of this precise character—the first by the same publishers—that has appeared in more than a quarter of a century. The volume is the outcome

of an attempt to view the practice of medicine simultaneously from the pathologic and therapeutic points of view, and it is concise, practical, and most readable.

The section on Nervous Disease, and the articles on Diseases of the Muscles, Infectious Diseases, and Acute and Chronic Poisoning, including all the therapeutics, are from the pen of H. C. Wood. The remainder of the volume, including Diphtheria, Dysentery, Tuberculosis, Leprosy, and Syphilis, Diseases of the Blood and of the Ductless Glands, Parasites, and the sections on the Circulatory, Respiratory, Digestive and Urinary Systems (except the therapeutics), are from the pen of Doctor R. H. Fitz.

While each author has thus written certain determinate portions of the work, consideration and discussion of the various subjects have been so carefully joined that there is a common responsibility except in the very few places where final difference of opinion is indicated in the text by initials or by the use of the singular instead of the plural pronoun.

A work of this character has long been a desideratum, and we congratulate authors and publishers alike most heartily on the complete success attained in providing an *original* text-book that is truly worthy of the title.

THE PHYSICIAN'S PERFECT CALL LIST AND RECORD.
By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 16mo; pp. 200. Price, \$1.50. George S. Davis, Detroit.

The fact this publication has reached its *eleventh year* is sufficient evidence of its popularity and practical usefulness. Its paper and binding are alike superb. In size and shape it is by long odds the most convenient and the best of the "Visiting Lists;" moreover, it will not crumple or break down in the pocket.

A prominent feature is the absence of all advertisements and other "dead wood," and the extremely convenient arrangement of its most practical contents. Of the information afforded, that most demanded for ready reference is to be found upon the inside covers or on the fly-leaves; and this and the posological information and dosage table have been entirely rewritten and brought up to October 1st, 1896, so they are most thorough and complete.

Especially commendable is the obstetric table in two colors, and the arrangement for the concise keeping of all accounts, debit, credit, expense, profit and loss, loans, etc.

No physician can afford to be without this work.

FUNCTIONAL DISORDERS OF THE NERVOUS SYSTEM.
By T. J. McGillicuddy, A.M., M.D. Cloth; 12mo; pp. 367. William Wood & Co., New York.

This treats of a class of affections peculiar to women, frequently considered of too little impor-

tance to require medical aid, or perhaps too often overlooked as of no particular significance. The various reflex neuroses, with their almost infinite manifestations, are carefully treated, and ingeniously illustrated by a series of original diagrams. The chapter on therapeutics is especially practical and cannot fail to be welcomed by the majority of practitioners. Finally, the volume is illustrated by a large number of wood engravings, mostly original, besides two full-page colored plates, all derived from the author's collection of sketches.

PTOMAINS, LEUCOMAINS, TOXINS, AND ANTITOXINS.
By Victor C. Vaughan, Ph D., M D., and Frederick G. Novy, M D. Cloth; 12mo; pp. 603. Price, \$3.00. Lea Brothers & Co., Philadelphia.

The third edition of this well known work is before us. It is perhaps the most complete volume of its kind in the English language. Now that the chemical factors in disease are being so generally considered, this work will prove of exceptional interest. The present edition has not only been thoroughly revised, but greatly enlarged, ample consideration being given to the new subjects of Toxins and Antitoxins.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Publishing Co., Irvington-on-the-Hudson.

Contents for November: "Under Shadow of Vesuvius," by Edgar Fawcett; "Through Oriental Doorways," by Laura B. Starr; "Belles of Caracas," by W. N. King; "Personal Recollections of the Tai-Ping Rebellion," by General Edward Forester; "A Modern Fairy Tale," by T. C. Crawford; "A Memory," by Harold MacFarlane; "Some Examples of Recent Art;" "A Legend of the Navajoes," by W. C. Duxbury; "The Story of a Story," by Caroline Ticknor; "A Queen's Minister's Business Day;" "The Love of Lady Isabel Burton," by Margaret Lenox; "The Selfish Man," by Marguerite Merrington; "Two Writers," by J. L. Ford; "In the World of Art and Letters;" "The Progress of Science." The poetry is by W. Hill, Helen O'Sullivan Dixon, and Dallett Fuguet.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

The November issue opens with an article by W. H. Hudson entitled "The Moral Standard." Other papers are: "Public Aquariums in Europe," by Bashford Dean; "On the Crater of Mount Shasta," by A. S. Packard; "Notes on Bhils, Burmese, and Battaks," by R. W. Shufeldt; "The Abundance of Animal Life," by M. A. Gaudry; "Shells," by M. W. Leighton; "Double Personality," by William Romaine Newbold; "A Dog's Laugh," by M. le Vicomte d'Aiglun; "Popular Superstitions," by W. J. Hoffman; "Science in Wheat-growing," by M. P. Dehérain; "Evolution of Insect Instinct," by M. Ch. Pertont; "Deaf and Dumb," by M. E. Adams. There are the usual departments.

THE ECLECTIC MAGAZINE. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The November issue contains: "American Currency Cranks," by W. R. Lawson; "John Everett Millais, Painter and Illustrator," by J. and E. R. Pennell; "A Claim for the Art of Fiction," by E. G. Wheelwright; "The Family Council in France," by Miss M. Betham-Edwards; "The Drift of Modern Medicine," by G. M. Carfrae; "Thomas Henry Huxley," by Wilfrid Ward; "African Folk-lore," by A. Werner; "Quinta Life in Argentina," by J. B. James; "The Decline of Fur Sealing," by M. R. Davies; "Trafalgar from the Spanish Side," by W. L. Clowes; "The Æsthetics of the Dinner Table," by A. K. Herbert; "A Romance of the Molehill Country," by U. L. Silberrad; "The First Foot," by Margaret Hunt; "Foreign Literary Notes," "Miscellany."

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

Contents for November: "Election Day in New York," by Ernest Ingersoll; "Campaigning with Grant," by Horace Porter; "Santo Domingo," by Thomas B. Aldrich; "Why the Confederacy Failed," by Duncan Rose; "The Olympic Games of 1896," by Pierre de Coubertin; "Hugh Wynne, Free Quaker" (I), by S. W. Mitchell; "The Breath of Hampstead Heath," by Edith M. Thomas; "An Object Lesson in Municipal Government: Birmingham," by George F. Parker; "The Parlous Wholeness of Ephraim," by C. B. Fernald; "After Br'er Rabbit in the Blue-Grass," by John Fox; "The Chinese of New York," by Helen F. Clark; "Joan of Arc," by Boutet de Monvel; "The White Spider," by H. S. Edwards; "The Young Tenor," by John B. Tabb; "A Rose of Yesterday" (I), by F. M. Crawford; "America and England, 1895-1896," by G. E. Woodberry. There are also the usual departments.

ST. NICHOLAS. Price, 25 cents; \$3.00 per year. The Century Co., New York.

The November number begins a new volume, the contents of which are: "Master Skylark" (I-III), by John Bennett; "How Plants Spread," by Thomas H. Kearney, Jr.; "June's Garden" (I-II), by Marion Hill; "A Race for a Girdle," by Jane M. Parker; "How the Bad News Came to Siberia," by George Kennan; "The Last Three Soldiers" (I-III), by W. H. Shelton; "The Plimsoll Mark," by J. M. Elliott, U. S. N.; "The Bicycle Race," by Walter Camp; "A Wonder-worker," by Christopher Valentine; "An Old-time Thanksgiving," by Eloise Talbot; "The True Story of Marco Polo" (XIII), by Noah Brooks; "The King's Castle in No Man's Land," by Frank M. Bicknell. There are the usual verse and departments.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The November number contains an article on "Panther-shooting in Central India," by Captain C. J. Melliss; "What America Has Done for Whist," by "Cavendish"; "The Renaissance of Lithography," by M. H. Spielmann; "Sentimental Tommy" (XXXVI-XXXVII), by J. M. Barrie; "Over the Chil-koot Pass to the Yukon," by Frederick Funston; "Specs," by L. C. Beard; "An American Mother," by Mary L. Underwood; "The Camera and the

Comedy," by Alexander Black; "Women Bachelors in New York," by Mary G. Humphreys; "My Indian Plunder," by Julian Ralph. There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

The October 31st issue contains: "The Close of the Campaign," "Editorial Notes and Comments," "Wood-carving and Wood-carvers," "The Chanler Prize," "The Training of Workers in the Applied Arts," "Thirtieth Annual Convention of the American Institute of Architects," "Cavern Dwellings in Isipica," "New Rules for Drainage and Sewerage," "The Pyramids," "Increasing Resistance to Fire of Wrought Iron Pillars," "Civil Service Examinations," "Architectural Division," etc.

OUTING. Price, 25 cents; \$3.00 per year. The Outing Publishing Company, New York.

Table of contents for November: "Prominent Horses of the Season," by E. B. Abercrombie; "The Story of a Penny Pencil," by Sarah A. Wedderburn; "The City of the White Dove," by Annetta Josefa Halliday; "Over Decoys on the Mississippi," by F. E. Kellogg; "Back to Grindstone Canoe Camp," by R. B. Burchard; "An Adventure with African Lions," by Traber Genone; "Lenz's World Tour Awheel" (continued); "A Trial of Turkey-tracking," by E. W. Sandys; "Gossip on Golf," by H. G. Hutchinson; and the usual athletics, yachting, etc.

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines, Iowa.

In the November number "Grant's Life in the West and His Mississippi Valley Campaigns," by J. W. Emerson, is continued. Mary L. Pratt writes of "Joaquin Miller's Mountain Home," "On Foot in Egypt and Palestine" (IV) is by N. Tjernagel; "Mountain Laurel," by L. G. Giltner; "A Drama of Doodlebugs," by Ruby Rosser; "The Young Homesteaders" (VII), by F. W. Calkins; "Lincoln and Douglas," by Daniel Evans. There are the usual verse and departments.

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Company, Boston.

The November issue contains: "The Evolution of Methods of Heating and Cooking," "The Chemistry of Cooking and Cleaning," "Some Suggestions for the Conduct of a Kitchen Garden," "The Domestic Economy Conference," "Work of Household Economic Associations," "Our Domestic Muddle and a Way Out of It," "Thanksgiving Menus," "A Short Course in Cookery—Meats and Poultry," and the usual departments.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; \$1.00 per year. Fowler & Wells Co., New York.

In the November number B. R. Childs writes of "Phrenology in Courtship," "Mrs. T. F. Tolland" and "Child Culture" are by Nelson Sizer; "Phrenotypes and Side Views," by H. S. Drayton. There are the usual departments.

Therapeutic Brevities.

Lobelia.—This drug has two marked physiological actions, according to the size of dose and the constituents of the preparation. In small doses of the tincture of the entire plant, it is a pronounced cardiac tonic; it stimulates the augmentor nerve of the heart, which is a branch of the sympathetic, thereby causing more frequent beats and stronger contractions. This augmentor nerve in some animals is an accompaniment of the cardiac vagus, yet at its root in the cranium is distinct; while in other animals, and probably in man, it is a distinct nerve running in company with the vagus. and applied to the heart by certain endings that ramify in the cardiac muscle cells and impart the augmentor action. On this nerve lobelia in small doses acts—that is, it stimulates the centre of this augmentor nerve, whence impulses are sent down (efferent impulses) that strengthen the force of the systole and augment the frequency of the beat; this is observed both in the dog and in man. So far as its scope obtains, there is no more reliable heart tonic. I have often witnessed its marked value in causing a feebly beating heart to beat stronger, faster, and more regularly.

In larger doses, but not so large as to verge on the toxic, lobelia acts on the vagus, probably on the depressor nerve also. Under its influence a rapidly beating heart is brought down to a slower pace, while at the same time, the dose being within safe limits, the force of the heart is strengthened.

It also stimulates the splanchnic nerves, which govern the supply of blood to that vast vascular area in the abdomen, the intestines, mesentery, spleen, etc.—a process that reacts on the arterioles of these parts, causing vaso-constriction impulses, resulting in raising blood-pressure by shutting out the circulation from this vascular area and throwing an enormous quantity of blood into the general arterial circulation. Now lobelia can stimulate or cause vaso-dilator impulses to pass down to these splanchnic territories; in moderately large doses it acts on these splanchnic nerves by causing an inhibitory influence to pass down the depressor nerve, and through it, reflexly, brings about a vaso-dilator impulse which causes the splanchnic arteries and capillaries to dilate and thus admit an immense quantity of blood into them, by which means blood-pressure is lowered. As a result of lowering blood-pressure in this way an immense quantity of blood may be sluiced off out of highly engorged and congested or inflamed territories, and thus the

circulation may be brought to a more even balance. It is this property that makes lobelia so exceedingly valuable in all diseases attended by local engorgements and active congestion as well as inflammation. I have often seen cases of deep engorgements of the lungs and other thoracic organs, also of the organs of the abdomen, relieved by small doses of lobelia often repeated. This medicament will remove engorgements of the pelvic viscera, uterus, ovaries, or the vast beds of cellular tissue that often become the seat of profound engorgements resulting in pelvic cellulitis.

Large doses of lobelia are a powerful depressant of the heart, but never of the respiratory system. Large doses cause vomiting, empty the jejunum and other small intestines by promoting peristaltic movements, but have little if any influence on the colon and rectum.

Lobelia is not a poison to the vagus or cardiac centre, though it can, and often does, cause the so-called "alarm" symptoms when the doses are large and oft-repeated.

I have known scores of cases of incipient pneumonia, continued fever, puerperal fever, etc., to be nipped in the bud by the tincture of lobelia, given in twenty-minim doses in warm soda-water, repeated at short intervals till thorough vomiting was brought about; following this, in most cases, profuse diaphoresis would set in, the heart beat more slowly, regularly and strongly, and convalescence follow under careful dieting.

Lobelia is a heart tonic, but not like digitalis. Digitalis acts on the heart as ergot does on the gravid uterus; on the contrary, lobelia acts on the heart like cimicifuga.—JOSEPH ADOLPHUS.

The Weaning of Infants.—When a child reaches the age of six months, it is well to think of weaning. I have very successfully tried gradual or partial weaning; this consists in giving at the age of six months one hand-feeding of six to eight ounces during the twenty-four hours, consisting of cow's milk three ounces, and, if the bowels are regular, three ounces of barley gruel, made with water and about two-thirds of a grain of ordinary table salt and one-half lump of cane sugar. Each month following the sixth month we can withdraw one breast-feeding and in its place substitute artificial feeding, so that by the ninth month the infant is weaned. Unless it be midsummer, or on account of some special condition, complete weaning should take place about the tenth month. In addition to giving a bottle in the method of partial or gradual weaning, a small piece

of crust of bread or zwieback can be added to the dietary, besides a little thin beef-soup or expressed meat-juice. If the increase in weight does not amount to five or six ounces weekly, it is advisable to make a careful chemical and microscopic examination of the breast milk.—DOCTOR FISCHER, in *Pediatrics*.

Chancroid.—Chancroid is a dangerous and treacherous lesion; many times the virus plows its way beyond the range of the eye, and when local applications are made this feature of the case should invariably be looked after.

An application I have used with success, and which is both painless and thorough, is, equal parts by weight of pure nitric acid and camphor gum. Owing to the explosive properties of this compound, it is necessary to always make a fresh mixture, or, by leaving the bottle of solution uncorked you can keep the compound in good shape indefinitely. Apply the preparation with a piece of absorbent cotton, wound about a toothpick or match, direct to the sore; little if any pain is experienced. The escharotic effect of the nitric acid is maintained, and the patient is always delighted with the result, should he have experienced the pure acid before. This same compound acts with equal reliability upon, and in the treatment of, old ulcers and unhealthy granulations.

Just what nitric acid and gum camphor form, I am unable to say.—LOFTON, in *Atlanta Medical and Surgical Journal*.

Position after Labor.—The absolute quiet so often enforced for ten days after confinement does not always produce beneficial results, and may even effect injury. Constantly reclining on the back may tend to encourage, if it does not actually produce, retro-displacements, particularly in cases where the perineum has been ruptured and not properly repaired. No obstetrician should insist upon keeping his patient constantly upon her back. Excellent obstetricians, as Parvin and Goodell, have for some time taught that when the patient's strength will admit she should be allowed to sit up when evacuating the bladder or rectum, and that after three or four days she may be warmly wrapped up and lifted to an easy-chair. The upright position favors drainage, and as long as the patient makes no effort to walk or otherwise exert herself, no fear need be entertained as to uterine displacements or other injurious consequences. This practice presupposes the labor to have been normal and free from subsequent complications.—JELKS, in *Pacific Medical Journal*.

Roentgen Rays in Cancer.—The *Lyon Medical* tells of the treatment of cancer of the stomach by Roentgen rays, and claims it ameliorated the general condition and prolonged the patient's life for two weeks, absolutely suppressing the pain over the tumor and notably diminishing the volume. It is added that it is well to use caution in applying the rays, as several cases of severe erythema have followed their use. In one case a sloughing lesion over the part was produced, which did not yield readily to treatment. It has been noticed also that when applied for any length of time to the head the hair at that place is likely to come out, leaving a bald spot. Like any other powerful agent, the X rays should only be used when it is hoped to obtain positive benefits. Photography by these rays has been so simplified that only a short exposure is now necessary.—*New York Medical Times*.

Gonorrhœa in the Female.—The so-called "early and thorough" treatment is to be condemned as meddling and mischievous, inasmuch as it is based on a pathology now discarded as crude and imperfect; it is not applicable to all the tissues simultaneously affected; and the results at the end of the acute stage are no better than those attained by more rational and less exacting treatment. Further, such treatment is often dangerous, cruelly painful (requiring an anæsthetic for its proper execution), and impracticable even in the hands of an expert. Unfortunately, however, though this treatment is irrational, inefficient, severe, and dangerous, the physician who does not practice it is stigmatized as old-fashioned, negligent, and indifferent to the interests of his patient.—ROSENWASSER, in *Hot Springs Medical Journal*.

Resuscitation from Chloroform.—Resuscitation from chloroform is effected by the operator, standing on the left side of the patient and facing him, placing the ball of the thumb of the opened right hand upon the patient's chest, at a point between the apex beat and the sternum; then repeatedly pressing in the thoracic wall with a quick, strong movement, at the rate of 30 to 120 times to the minute. The efficacy of the method lies in its direct action on the heart, restoring not the respiration only, but the circulation also. If on a fresh cadaver the pericardium be quickly and forcibly compressed, it is easy to detect a distinct pulse wave in the carotid arteries, and the pupils will be found to contract as the blood fills the capillaries of the iris.—*Sanitary Era*.

Shortening the Scrotum.—The plan suggested by Doctor W. E. Parker, of New Orleans, is to suture the scrotal incision, made for tying the veins in varicocele, by the open method and horizontally instead of vertically; this effectually shortens the scrotum in proportion to the length of the incision. The suturing is commenced at the angles of the slit, upper and lower, and then carried to either side to completion. The cosmetic effect is preserved. A snugly fitting suspensory bandage is advised for a time.—DOCTOR NORSWORTHY, in *Southwestern Medical Record*.

Tubercular Meningitis.—The best general preventive treatment of infants and children with a predisposition to tubercular meningitis, rendered probable by hereditary taint and by suspicious symptoms, consists in the regulation of the diet and hygiene, animal food mostly, daily cool or cold bathing, with vigorous friction, open windows, exercise, cod-liver oil during the cool and cold months, arsenic in regular small doses, and pure guaiacol for many months in succession.—JACOBI.

A Treatment of Erysipelas.—All the local measures recently recommended in erysipelas do not in the least influence the morbid process. For a long time it has been my habit to employ absolute cleanliness by washing the affected parts with soap and water, and I am quite satisfied with results, for they are certainly as good as with other more energetic local measures.—PAVLOVSKY, in *Wiener Medizinische Presse*.

Scrotal Pruritus.—When other measures have failed, success may be attained by means of an ointment of picric acid—in the proportion of one-half to two grains to the ounce. Owing to its toxic properties, however, it is well to begin with the lower proportion. It may be used with care in rebellious affections such as senile pruritus and prurigo ferox.—*La Clinique de Bruxelles*.

Thuja Occidentalis.—In enuresis caused by the enlargement of the prostate gland, give ten to twenty drops of tincture thuja three times a day. It may be used as an injection into nævus, hernia, hydrocele, uterine fibroids, and piles, if diluted one-half with water. It is an excellent application to epithelioma and goitre. In gangrene it dries up the tissues and stops the discharges and odor.

Gonorrhœa.—A good gonorrhœa remedy is: Methylene blue, oil of santal, q. s.; mix, and dispense in thirty capsules, three or four to be taken each day. The santal is all right, and whether the methylene blue has specific relationship to the condition or not, the blue urine constitutes a powerful moral factor.—DOCTOR COOPER, in *Medical Gleaner*.

Minor Morbid Growths.—If a spot is touched with fuming nitric acid, and then immediately afterward with pure carbolic acid, there is strong chemical action, the effects of which penetrate deep into the tissues and completely and permanently cure warts, condyloma, angioma, etc.—LANDENBERG, in *Centralblatt für Chirurgie*.

Echinacea.—Echinacea has been for some years my first choice as an alterative in septic conditions, and I use it internally and topically. I saved a limb with it last fall on a five-year-old boy, a case of typhoid fever relapse and a "fever sore." The environment was the worst.—DOCTOR FRIEND, in *St. Louis Clinique*.

Thlaspi Bursa Pastoris.—Will relieve brick-dust deposit, or dropsy with brick-dust or red sand in the urine; also mucus, pus, blood or albumen in the urine, and cases of bloody and mucous discharges from the bowels. It has cured severe cases of dropsy after the failure of other remedies.—*Homœopathic Recorder*.

Pruritus Vulvæ.—

℞ Chloral camphor, 2 drachms.
Bismuth subnitrate, 2 drachms.
Rose-water, 4 ounces.

Apply to the parts.

Or paint with solution of nitrate of silver, 20 grains to the ounce of water.—*Medical Record*.

Creosote.—Creosote, the sheet anchor upon which so many have relied in the treatment of tuberculosis, has no direct influence upon the tuberculous processes of the lungs. The drug acts as a tonic to the stomach, and lessens secretions, but aside from this is of no use whatever.—*New York Polyclinic*.

Abortion.—When this is demanded, pack the uterine cavity with iodoform gauze, and fill the vagina with salicylated wadding. In a few hours the pains begin, and in a few hours

cease. On removing the wadding, the contents of the womb will generally be found in the vagina.—DUHRSEN.

Gall-stone.—A case of biliary colic was repeatedly relieved by the use of nitro-glycerin, $\frac{1}{100}$ grain, administered as required. I was induced to employ the drug from its well known power of relaxing unstriated muscular tissue.—DOCTOR TURNBULL, in *The Lancet* (London).

Coryl.—Under this name a mixture of the chlorides of ethyl and methyl has been put forward as a local anæsthetic. It remains liquid at 0° C., while methyl chloride alone boils at -27° . It is recommended for minor operations and for dental surgery.—*Druggists Circular*.

Parasiticide.—

- R Spirit of camphor, 4.2 grammes.
- Glycerin, 1 gramme.
- Essence of turpentine, 0.18 gramme.
- Mercury bichloride, 6 grammes.

—*Atlantic Medical Weekly*.

Malaria in Children.—Where the child's stomach will not tolerate quinine, excellent results may often be had from alcoholic extract of the leaves and blossoms of the sunflower, in doses of one-sixth of a grain in twenty-four hours.—MONCORVO.

Pneumonia.—Strychnine is of the very highest value in this malady. Of forty-five cases of the disease treated with this remedy during the past two years in the Brooklyn Naval Hospital, only three died.—*Report of Surgeon-General U. S. Navy*.

Mania a Potu.—As a prophylactic measure in delirium tremens, moderate quantities of alcoholic stimulants, of digitalis and capsicum, of nourishing food with plenty of sleep, are demanded.—*College and Clinical Record*.

Magnesia for Burns.—A mixture of calcined magnesia and milk, formed into a paste, is an excellent coating for burns. A thick layer is applied, and supplemented several times daily.—*Apotheker Zeitung*.

Constipation.—Many affected with constipation do not drink enough water, whether hot

or cold. There is not enough fluid in the body for the normal secretions and eliminative fluid.—EPHRAIM CUTTER.

Hæmorrhoids.—Sulphur and cream of tartar, equal parts, form an excellent laxative for hæmorrhoidal conditions during pregnancy, producing soft and semi-liquid stools.—DA COSTA.

Vomiting After Etherization.—One-quarter of a drop of carbolic acid every hour, for a few hours, will often stop vomiting after anæsthesia.—*The Lancet*.

Tinea Versicolor.—"Moth" or "liver" spots are said to yield to hyposulphite of sodium, one drachm to the ounce of water, applied locally. Try it.

Chronic Leucorrhœa.—Thomas More Madden insists that the best constitutional remedy where there is chronic leucorrhœa is arsenic in small doses.

Itching of Eczema.—Fluid extract jaborandi applied locally gives almost instantaneous relief, though its effects are sometimes only evanescent.

Amenorrhœa.—When the result of "cold," a half-drachm of fluid extract of water pepper (*Polygonum acre*) is held to be a practical specific.

Chorea.—There are two drugs that should never be lost sight of in this malady; one is cimicifuga, the other arsenic.—*Homœopathic News*.

Furuncles.—Where these appear in crops, it is recommended to employ fluid extract of colchicum in half-drop doses three times daily.

New Local Anæsthetic.—It is claimed that guaiacol can in many instances effectually replace cocaine as a local anæsthetic.

Tinnitus Aurium.—If due to quinine, this may be readily overcome by the administration of belladonna.

Atonic Impotence.—Phillips recommends ligation of the dorsal vein.

Medical Progress.

POST-MORTEM NOTES ON DEATH DURING CHLOROFORM ANÆSTHESIA.—As I have had more opportunities during the last few years of making autopsies of those who have died during the administration of chloroform, than fall to the lot of most medical men, I have thought it might not be uninteresting to briefly describe the appearances found, and the conclusions I have formed from my experience. In all I have collected eleven cases, in ten of which I made an examination myself.

Case 1.—June, 1890. In this case the patient was a man with the largest hydatid liver I have ever seen; it extended from the third rib on the right side to the brim of the pelvis, and was adherent both in front and behind to the abdominal walls; it was full of cysts. The right pleural cavity contained fluid, and the lower lobe of the right lung was collapsed; the left lung was completely adherent to the chest-wall. The pericardial cavity contained an excess of fluid; the heart was dilated and flabby, especially the right side; its muscular substance was soft; the valves were healthy. The kidneys were large and congested.

Case 2.—November, 1890. A male patient, 73 years of age, with a malignant stricture of the sigmoid flexure; obstruction had been gradual. The body was emaciated, and the intestines, especially the colon, enormously distended with fluid fæces and gas. Both sides of the heart were relaxed and flabby; the coronary arteries were tortuous; the tricuspid orifice admitted six, the mitral four fingers. Both lungs were congested, their substance being deep red in color and friable in consistence, especially the lower lobes. The other organs were fairly healthy.

Case 3.—January, 1891. A woman, aged 60, with a very large carbuncle at the back of the neck. The right side of the heart was distended with dark fluid blood; the muscular substance of the right ventricle was streaky; the left ventricle was hypertrophied, contracted and almost empty. The lungs showed old adhesions to the chest-wall on both sides; their substance was congested; the bronchial tubes were deeply congested and contained a quantity of muco-purulent secretion. There was considerable œdema about the epiglottis, the aryteno-epiglottidean folds, and the vocal cords. The liver, kidneys and spleen were congested. The brain showed atrophy, with excess of fluid.

Case 4.—March, 1891. A negro, with a ruptured bladder and an imperfect rupture

of the diaphragm; the pelvis was also fractured on the right side in front and behind, on the left through the upper portion of the sacrum,—the bladder was ruptured about the middle of its peritoneal surface, and there were signs of peritonitis around the tear. The lungs were engorged, and the parts around the orifice of the larynx very much so, with œdema of the folds. For some reason no note was made as to the heart.

Case 5.—October, 1892. A male, 33 years of age, suffering from a pyo-pneumo-thorax. The blood in the body was dark and fluid. The trachea had been opened by an incision dividing the cricoid cartilage and the upper rings. There was a small surgical incision on the left side, between the eighth and ninth ribs. The large veins of the neck were distended with blood. The right lung was adherent all over to the chest-wall; its substance was uniformly congested; there was an old tubercular scar at the apex. The left was covered with a thick layer of recent lymph; at the apex there was a tubercular cavity, with an aperture the size of a pea communicating with the pleural cavity; the latter contained turbid fluid, and the lung substance was collapsed and almost carnified from pressure. The trachea and bronchial tubes contained frothy mucus; their lining membrane was deeply congested and showed a fine capillary injection, becoming brighter on exposure to the air. The pericardial cavity contained a slight amount of fluid; the heart weighed twelve ounces, its cavities relaxed and dilated; the right side contained some fluid blood; the wall of the left ventricle was rather thin, and the muscular substance tore rather easily; the tricuspid orifice admitted six the mitral four fingers. The liver and spleen were congested. The kidneys weighed sixteen ounces, cortex swollen and firm; they were congested. The brain was œdematous.

Case 6.—December, 1893. A young woman, 24 years of age, with tubercular disease of the knee-joint. She was being put under the anæsthetic when death occurred. The veins of the neck and chest contained a quantity of dark fluid blood. The heart was relaxed; both sides were flabby and contained dark fluid blood; the muscular wall of the right ventricle was infiltrated with fat and was rather thin; the mitral orifice admitted four, the tricuspid five fingers; the valves themselves were healthy; there was slight atheroma of the aorta; the pulmonary artery and its branches were full of blood, but the blood in the body was nowhere clotted. The lungs were irregularly congested, and contained a quantity of dark fluid blood; they were not

friable; there was a small tubercular cavity at the upper part of the lower lobe of the left, with recent miliary tubercle round about. The trachea and bronchi contained a quantity of mucous froth, and there was extensive capillary injection of the mucous membrane, which was dark bluish-red in color, becoming extremely bright on exposure to air; the lining membrane of the larynx and the upper part of the trachea was pale. The liver was congested and fatty. The kidneys were uniformly congested. The vessels of the cerebral membranes were engorged with blood.

Case 7.—February, 1896. A young woman, aged 23 years, with an abscess in the lower part of the abdomen, passing down into Douglas' pouch, and adherent to the cœcum and small intestines adjacent. The heart was completely relaxed, especially the right side, the muscular substance friable and infiltrated with fat; the mitral flaps were thickened, and there were a few vegetations on their free borders; the tricuspid orifice admitted four fingers. There was recent acute emphysema of the lungs. The kidneys were swollen and friable.

Case 8.—March, 1896. A boy seven years of age, who was to have been operated on for a keloid growth on the front of the chest. The lips were livid, and the pupils dilated. Rigor mortis was well marked. The blood in the body was dark and fluid, and the large veins of the neck and chest were distended with it. There was some petechial ecchymosis on the posterior surface of the heart, which organ was relaxed, with marked dilatation of cavities (especially the right ventricle), which contained some fluid blood; the mitral orifice admitted the tips of three, the tricuspid four fingers. The lungs were uniformly congested. The trachea and bronchi contained frothy mucus; there was marked capillary injection of their lining membrane, with some petechial ecchymoses brightening on exposure to air. The liver, kidneys and spleen were firm in consistence and congested. The membranes of the brain were congested.

Case 9.—June, 1896. A child, thirteen months old, admitted to the Children's Hospital, and supposed to have an intussusception. Chloroform was administered for diagnostic purposes. The heart was markedly dilated, and its cavities relaxed. There was marked congestion of the trachea, bronchi, and lungs. The veins of the neck and chest were engorged with dark fluid blood. The liver, kidneys and spleen were distinctly firm and congested.

Case 10.—May, 1896. A man, about 50 years of age, suffered from malignant stricture of the sigmoid flexure, and when placed

on the operating-table had continued fecal vomiting; the intestines were greatly distended with fluid feces. The autopsy showed well marked signs of an asphyxial mode of death, due to some vomited material being sucked into the respiratory passages.

Case 11.—June, 1896. A young woman, 24 years of age, with a large hydatid cyst on the upper border of the liver. It had been punctured, and the operation had proceeded far enough to allow of the removal of a small piece of a rib. The blood in the body was dark and fluid, and the large veins were distended with it. The lungs were healthy, but congested. The trachea was congested, becoming bright red on exposure to air; both trachea and bronchi contained some dirty mucus. The right ventricle was flabby and relaxed; the tricuspid orifice admitted four fingers; the left ventricle was in good condition, being slightly hypertrophied. The kidneys and spleen were firm. The membranes of the brain were congested. The mucous membrane of the stomach was congested; gastric contents were partly digested food, and mucus similar to that found in the bronchial tubes.

Out of these eleven cases there are some certainly in which it seems probable that chloroform, *per se*, had little if anything to do with the fatal result. Thus, in Case 1, the heart was so embarrassed that any slight additional strain might have been sufficient to turn the balance, and the note I made at the time was, "Cardiac failure during struggling." Again, Cases 2 and 10 represent a class of cases in which the administration of a general anæsthetic is most inadvisable, not only on account of the increased shock, but also because of the danger of insufflation of vomited matter; this actually happened in Case 10. Putting these three cases aside, however, we have a balance of eight persons who died at that particular moment, presumably because they were put under the influence of chloroform. Now, in only one of these, Case 7, is there any evidence that a primary cardiac failure was the mode of death. In all the others, without exception, the appearances of asphyxia were more or less marked, the difference in intensity being dependent, I believe, on the resisting power of the heart; in all the heart was more or less abnormal, being either dilated or else the muscle was infiltrated with fat. True fatty degeneration of the heart is, in my experience, a rare disease—at any rate in hospital post-mortem work.

In Case 11 the left ventricle was more powerful than normal, but the right one was dilated and feeble.

Cases 8 and 9 were especially interesting; both were children, in whom chloroform is generally considered particularly safe. Both had markedly dilated hearts, yet in both the signs of asphyxia were undoubted. In Case 8, a boy of seven, I could not ascertain that he had complained of any symptoms referable to the heart; his father said he ran about and played as boys generally do. Judging by the other organs, I consider the marked alteration of the heart in both cases to be due to congenital syphilis. There was a marked fibrosis, with thickening vessels throughout the liver, kidneys, spleen, and lungs, especially noticeable in sections prepared for the microscope. Indeed, looking at some of these sections—of liver, for instance—one wonders how the organ managed to discharge its functions at all, so uniformly and so generally is the new connective tissue distributed, sometimes appearing like a very finely meshed net thrown over the liver cells, many of which are fatty and degenerating. These children, as a rule, are plump and healthy-looking to all external appearance, but succumb very easily to comparatively trivial disorders or slight accidents. They have no resisting power.

The study of these cases seems to me to bear out the teaching enforced many years ago at Edinburgh by Syme—"watch the breathing, and never mind the heart,"—and certainly the most capable and successful chloroformists that I know carry out this dictum. I would urge, however, that it is not sufficient to watch a heaving abdomen or chest, as the case may be, and fondly imagine that the patient is respiring satisfactorily. No doubt there are cases of sudden cardiac failure on the operating-table, as Case 7 tends to show, but I believe this to be an infinitely rarer mode of death than the asphyxial method, and even then it may be questioned whether the chloroform is always to blame; people with feeble hearts occasionally die from shock, fright, etc., without the assistance of an anæsthetic.

One more conclusion I would offer, namely, that an opinion as to the mode of death, in the absence of a properly conducted autopsy, is utterly unreliable. In several of the cases I was confidently assured that the heart failed first, but the post-mortem appearances failed to bear out the assertion. Here I may appropriately quote a sentence from the article on "Anæsthetics" in Treves's *System of Surgery*, by F. W. Hewitt, who says:

Errors have frequently been committed in regarding the circulatory depression as the primary factor, the observers having overlooked the initial respiratory symptoms. . . . Circulatory failure

during anæsthesia is in the great majority of cases connected with, or dependent on, embarrassed or suspended breathing.

I think no one will dispute that the notes of the cases I have brought forward amply bear out these assertions.—C. H. MOLLISON, in *Intercolonial Medical Journal of Australasia*.

IS CONSTIPATION EVER A DISEASE?—Constipation has been very properly regarded by medical writers as a symptom of disease of the alimentary canal, or sometimes of the nervous system. The question arises, however, from clinical experience, as to whether it may not at times be a disease *per se*. This is suggested by cases such as the following, which are by no means infrequent: A person gives a history of repeated attacks of indigestion, with the ordinary symptoms of diarrhœa, nausea, pain in the abdomen, etc., preceded for a day or so by sluggishness of the bowels or, perhaps, entire cessation of peristalsis. It has usually been said that the preliminary constipation was the first symptom of irritation of the alimentary canal. Attacks of this kind are caused by overeating or by eating articles usually classed as indigestible or which an idiosyncrasy renders improper. The treatment most used is, first, to cleanse the alimentary canal by free purgation, thus aiding the natural tendency, and then to administer emollients and antiseptics.

At the same time we know that if constipation arises in the course of organic disease of the spine, for instance, after a day or two it is followed, as a rule, by free diarrhœa and, in general, symptoms much similar to those which accompany the disturbances caused by faulty nutrition, as noted above. Furthermore, observation shows that if cascara sagrada, a true tonic laxative, be used in small doses by the person predisposed to the attacks of indigestion, so as to insure free movement of the bowels every day, the attacks will seldom occur. Indeed, some patients can partake with impunity of articles for which they have an idiosyncrasy, provided they use the laxative simultaneously.

These facts seem to render the conclusion clear that constipation may frequently be the primary disease, while the diarrhœa, pain, etc., are merely incident to the irritation caused by the retained fæces.

The further conclusion would also seem inevitable, though by no means novel, that certain articles of diet are of themselves directly constipating and produce more or less serious disturbance of digestion, unless ac-

accompanied by a laxative drug or article of food which overcomes the constipating tendency.

If the above method of reasoning is correct, and the conclusions are properly drawn, our cases of recurring dyspepsia should be restudied to see if any of them may not be permanently relieved by the method suggested.—*Cleveland Journal of Medicine*.

ANCIENT THERAPEUTICS.—The comparison of modern therapeutics with those of olden times is striking, and one is amazed at the little difference, especially when investigating serum therapy or hearing the old ladies' treatment for disease.

A fair sample of the treatment of a fever patient in the year 30 A.D. is as follows: The gall of a wild sow dissolved in vinegar; the ashes of a wolf's skull, mingled with the fat of a viper; a stone taken from the head of a sea eel, caught at the time of the full moon, and powdered, together with a portion of scorpion's legs (which latter were held to be efficacious when taken alone, but superior when compounded). Water was positively prohibited. "Gall," then as now, was prescribed as a laxative and so-called stimulant to the liver. To-day, instead of taking the fat of a viper, the virus is used in an attenuation, and the patient inoculated; and not only the legs, but the whole bug, in the case of some insects, is used in medicine.

The following, taken from an official dispensary of 1659, gives us the therapeutics of that day for the prevention of plague:

First: When there comes any danger, and you fear that you have taken the plague, make your water presently and taste it if it be yet brackish in the middle; if it be, you are not infected; but if it taste sweetish, or hath no taste, this is an ill sign; wherefore presently use these remedies following: If you drink your own water morning and evening, the middle part is the best to keep a man free from the plague who is not yet infected with it.

Secondly: Keep in your house the oil of juniper—that is of an inestimable price; for this is so unspeakably good against the plague that all that keep it and drink of it are preserved by it, though they go into houses suspected and visit the sick. Such as go to visit the infected shall take mithredate that is right, and not falsified, in the morning, so much as a bean in quantity, with a little of the best and oldest wine vinegar, distilled from marygold flowers; and when they go to the sick they shall rub a little mithredate upon their own nostrils and lips, and hold in their hands a handkerchief wet with vinegar. Also, juniper water drunk in the morning keeps a man well from corrupt air, or as much mithredate as a bean taken in the morning, with juniper water about a spoonful.

To-day old women recommend sheep's dung or urine of certain beasts for certain

diseases; and in the near future probably serum therapists will have kidney bouillon on the market for kidney lesions, as they have desiccated thyroid, stewed sheep's testicles, spleen juice, etc., for various diseases to which flesh is heir.—*American Medical Journal*.

CEREBRAL URÆMIA.—There are two factors related to cerebral uræmia: A dominating toxic element caused by the failure of the diseased kidney to perform a satisfactory elimination of the debris of the organism: A mechanical factor, cerebral œdema, the localization of which in motor zones may cause convulsions, either general or limited to one side, to one member, or merely to several facial muscles. In some cases the uræmia presents an apoplectic form, in others it is hemiplegic; both depend, however, on cerebral œdema. Uræmia causes many cases of hemiplegia ordinarily supposed to be due to hæmorrhage or softening. Autopsy often shows no lesion, but this may be accounted for by the theory that the area of œdema disappeared at the moment of death.—*Health* (London).

REGENERATION OF THE SPLEEN.—Laudenbach relates the history of a dog in which the spleen was almost completely extirpated. Six months later the organ was found to have been completely regenerated. At the spot where the mesentery had been ligated was a twisted mass of new fibrous tissue, from below which a fibrous band carrying blood-vessels passed to the newly formed spleen. Other vessels passed to the regenerated organ in a newly formed mesentery.—*British Medical Journal*.

BRIGHT'S DISEASE.—Von Jaksch insists that free uric acid is present in the blood in the majority of cases of this form of kidney disease, as may be proved by the murexide test or microscope.

DIAGNOSIS OF SKIN DISEASES.—Psoriasis is usually situated on extensor surfaces, while eczema, like syphilitic eruptions, usually appears on flexor surfaces.

HYSTERIA.—This malady, which has so many masquerades, may be often detected by the fact that the temperature is sub-normal.

The Medical Age.

VOL. XIV.

DETROIT, NOVEMBER 25th, 1896.

No. 22.

Original Articles.

TYPHOID FEVER.*

BY DOCTOR JOAO VICENTE TORRES HOMEM.

(Continued from page 645.)

Case 3.—Filippe, free mulatto, aged 28, agricultural laborer, of poor constitution, entered Mizericordia Hospital June 17th, 1873, at 6 P.M. He fell ill on the morning of the 14th, and was without regular treatment until entering the hospital. He could furnish no information relative to the course of the disease during the four days previous. The physician on duty prescribed a mixture containing acetate of ammonia and tincture of belladonna. The next day, when I examined, I found him delirious, restless, with pupils much dilated, and tremor in upper limbs; temperature 104° ; pulse 120 and small; a great number of sudamina on the trunk and neck; tongue red, shiny, stripped of epithelium, and dry; intense thirst; belly very tympanitic, painful on palpation and percussion, especially in hypogastric region; frequent and profuse diarrhœa; bladder filled with urine—the patient had not urinated for twenty-four hours and the catheter drew off about a pint of reddish fluid, dense and fœtid; catarrhal râles in both lungs. Ordered six leeches to each mastoid process; mixture containing two drachms of cherry-laurel water, one and a half grains of extract belladonna, and two grains of extract hyoscyamus, in syrup of orange-flowers; orangeade as beverage; two enemas of decoction of marshmallow with laudanum; blister to calves of legs; poultice of flaxseed with laudanum to abdomen.

At 5 P.M. the interne found the patient with nose-bleed, a temperature of 105.5° , pulse 120; the other symptoms were the same, except the diarrhœa, which was less frequent.

June 19th there was continuous delirium, adynamia, carphologia; temperature 106° ; pulse 130 and very small; tongue scarlet,

dry, shiny, and tremulous; tympanites very marked; diarrhœa; bladder inert, but the catheter drew off about seven ounces of urine, which was dark and turbid, and without albumen. The respiratory organs could not be examined. Ordered mixture as before, but with a half drachm of tincture of musk added; same enema with laudanum; solution of gum Arabic sweetened with syrup of quince-seeds as a beverage; fomentations to abdomen with Selle's liniment; bathing twice daily with aromatic vinegar.

The patient was much the same at 5 P.M.; temperature 103° ; pulse 128.

On the 20th, there was delirium, double convergent strabismus, cramp of upper limbs (especially of right), a temperature of 104.6° , and a filiform and uncountable pulse; very confluent eruption of sudamina on trunk, neck, and arms; tongue could not be seen; epistaxis slight; tympanites; scanty diarrhœa; bladder inert, but the catheter drew off about three ounces of dark fœtid fluid. A large blister was directed to be applied to occipito-frontal region; hourly a powder containing one-twentieth of a grain of calomel triturated with five grains of milk-sugar.

At 5 P.M. the patient was comatose, with a temperature of 106.2° ; had taken, with much difficulty, two of the calomel powders. He died at 6 A.M. the following day.

Autopsy at 3 p. m.—Great blood-stasis in meningeal veins. Hyperæmia of the pia mater—this membrane being infiltrated with opalescent serum and so adherent to the cortical substance that on being detached it tore away a layer of the cineritious matter; this portion of the cerebral substance was perceptibly softened and reddish. Stomach with mucous membrane very much injected, ecchymosed at some points, softened very extensively. Intestines greatly distended by gases; in the mucous membrane of the duodenum and jejunum was noted great redness uniformly distributed; in the ileum, cœcum, and ascending colon, the glands of Peyer and Brunner appeared noticeably hypertrophied, prominent, and hard; next to the ileo-cœcal valve, which was swollen, red, and hard, were two small ulcerations which

* Translated from the *Estudio Clinico Sobre as Febres do Rio de Janeiro*, by Doctor George Bradley, U. S. Navy.

involved exclusively the mucous membrane. Mesenteric glands enlarged, reddened, and resistant; spleen enlarged; liver of normal size; kidneys apparently normal.

Case 4.—Ricardo Pamplona, Brazilian, aged 19, printer, of marked lymphatic temperament, thin and of weak constitution, entered Mizericordia Hospital August 3d, 1875. Had been ill for nine days and treated at his home—a small, dark, and ill-ventilated room. Had high fever continuously: latterly was delirious all night; diarrhœa; had taken pills of quinine sulphate, with *Agua Inglesa*.* This was all the information that could be elicited from the patient's brother, who accompanied him to the hospital, whither he was brought in a hammock, as the necessary means for continuing his treatment at home were lacking. Examination revealed very marked emaciation over entire body, especially in face, where all the signs of the Hippocratic countenance were present; profound adynamia; sub-delirium; responded to questions tardily, sometimes clearly, sometimes rambling; temperature 104.4° ; pulse 112; tongue dry and red at the tip; teeth covered with sordes; great thirst; wandering pains over whole abdomen; acute pain, disclosed by percussion, and gurgling, in right iliac fossa; scanty bilious diarrhœa; liver and spleen enlarged; urine free from albumen; sibilant and sub-crepitant râles in both lungs. Ordered meat broths, and six ounces of milk; also a tablespoonful every hour of the following:

- B Soft extract cinchona, 3 drachms.
Tincture canella, $1\frac{1}{2}$ drachms.
Good port wine, 10 ounces.
Syrup of orange peel, 10 drachms.

At 5 P.M. the delirium was more intense; temperature 102.6° ; pulse 120: other symptoms same.

August 4th: Profound adynamia, and drowsiness; the patient, on being forcibly aroused, opened his eyes, uttered a sigh, and fell again into stupor; temperature 100.4° ; skin bathed in clammy sweat; pulse 128; tongue still in back of mouth and very dry; teeth covered with sordes; abdomen very tympanitic; pain and gurgling in right iliac fossa; no evacuations; liver and spleen enlarged; urine very scanty. Chest could not be examined. Ordered a tablespoonful every hour of a mixture containing one drachm each of tincture musk and tincture canella, in one ounce of syrup of orange peel and three ounces each of rum and water; meat broths, milk, and coffee.

At 3 P.M. he became profoundly comatose, and his extremities, both upper and lower,

grew cold. At 5 o'clock the interne found him moribund, and death took place at 7 P.M.

Autopsy at 9 a.m. of the 5th.—Some sub-arachnoid serous effusion; injection of white substance of brain. Congestion of base of both lungs, and tubercular granulations in both upper lobes, more advanced in development and confluent in the right. Nothing noteworthy in pericardium and heart. Stomach much distended by gases, its mucous membrane slightly reddened; great redness of the three portions of the small intestine and colon; Peyer's and Brunner's patches presented dark punctation upon their surface, similar in appearance to a new-shaven beard, but no ulceration; mesenteric glands swollen and reddened; liver and spleen congested.

In the first days of its development, typhoid fever is often confounded with malarial remittent fever (Case 2), and the thermometer is here a great aid in the differential diagnosis: during the twenty-four hours which follow the appearance of febrile reaction, the temperature never reaches 103° when we have to do with the first pyrexia, while it often attains or even exceeds this figure in malarial remittent. When the temperature does not follow the regular course assigned by Wunderlich and other European authors, the symptoms of dothin-enteritis present themselves from the commencement in so grave a form that it is easy to recognize it and to exclude from the diagnosis any other infection.

As already said, typhoid-malarial remittent fever may be so confounded with typhoid that the differential diagnosis is impossible if the physician does not consult the effect of quinine or the degree of febrile temperature, if the disease does not date from more than forty-eight hours. I have already declared myself in detail upon this point, in my paper on typhoid-malarial remittent fever.

Acute general miliary tuberculosis and basilar cerebro-meningitis with us at times simulate typhoid. In the former case, attention and minute examination of the patient and the course of the morbid phenomena quickly dissipate any doubts; in the second, the previous history of the disease, the mode in which it commenced, the course of the temperature, the absence of abdominal symptoms, and the early appearance of delirium or coma, do not long allow hesitation in the diagnosis.

* Cinchona fermented with the must of grapes.

Typhoid fever is not so grave in Rio de Janeiro as in some countries of Europe, the prevailing mortality, according to the best statistics, being from twenty to twenty-five per cent. The bad hygienic conditions under which the patient has lived, impoverished nutrition, and the employment of a perturbing or untimely system of medication, powerfully concur to render the affection more serious, and favor a fatal termination.

Dryness of the tongue in the first twenty-four hours, premature delirium, exaggerated tympanites, great sensitiveness of the abdomen, and scarcity of chlorides, phosphates and urates in the urine, are signs of the highest gravity. The cerebral is the gravest of all the forms of typhoid fever with us, and the abdominal the most benign.

The treatment of typhoid fever has passed through diverse phases in Rio de Janeiro, as it has in Europe. The antiphlogistic, purgative tonic, expectant and symptomatic systems of medication have been practiced successively, one after another, that of yesterday being entirely abandoned to-day. In 1859 and 1860, when I began to practice medicine, antiphlogistic measures, including blood-letting and purgatives, dominated the treatment of dothin-enteritis. Later, the expectant method, extolled by the learned Professor Baron de Petropolis, came very much into vogue. At the present day it may be affirmed, without fear of error, that physicians are divided into two groups as to the manner of treating patients with this malady: some obey blindly the indications furnished by symptoms; others employ, from the beginning to the end of the disease, tonics and strengthening agents, and feed the patient. This last method has been popularized since the doctrines and practice followed by Doctor Jaccoud in the Lariboisière Hospital of Paris were made known here.

I follow no exclusive method, and cannot convince myself of the utility of any such. In a disease primarily and secondarily infectious; characterized by septic intestinal inflammation; with symptomatic manifestations so numerous and so varied; assuming diverse forms, in each one of which predominate the lesions of some one set of organs; whose course is perturbed by a series of morbid episodes at times unforeseen,—it is not ra-

tional to employ an invariable treatment, one always the same.

If during the first week there are well marked congestive and inflammatory phenomena, I do not hesitate to resort to local blood-letting, but I have never employed general bleeding. I apply leeches to the mastoid processes and the base of the skull in the cerebral form, when evident signs of hyperæmia of the meninges are present. I apply leeches to the abdomen, especially to the right iliac region, in the abdominal form, when the violence of the pain, excessive redness of the tongue, profuseness and frequency of diarrhœa, and the very high degree of febrile heat, indicate the existence of very intense enteritis. I apply wet cups to the chest in the thoracic form when there is extensive lobar pneumonia, or when one or both lungs are congested.

In almost all cases, if not in all, I begin the treatment by administering a saline purgative—sulphate of magnesia by preference, in the dose of two drachms every two hours, till large evacuations are procured. If the tongue remains coated, the belly tympanitic and painful, and if the disease has not yet passed the first week, I persist in the purgative treatment for two consecutive days.

If there are no marked and grave nervous symptoms, if the bronchitis is moderate, and the fever does not go beyond 103° in the evening exacerbations, I keep the patient on slightly acid and refrigerant drinks, and increase the action of the skin by combining the acetate of ammonia with them.

If the temperature is very high, particularly if it goes over 104° , I have recourse to bathing two or three times a day with alcohol and water or aromatic vinegar; I make use of calomel in fractional doses, and employ ice-caps and blisters to the extremities.

Only after the end of the first week, ordinarily during the second, when the adynamia has become preponderant, associated, as it almost always is, with ataxia, do I resort to tonic treatment on the large scale, composed chiefly of alcoholic drinks, cinchona, canella, gentian, etc.

As soon as the ataxic symptoms appear, I prescribe an antispasmodic and diffusible stimulant mixture. The ammoniacal preparations, ether, musk, valerian, hyoscyamus,

are the drugs I give preference to in this case; also camphor, asafœtida, and castor, in enema, have rendered me valuable assistance.

As soon as cerebral symptoms are manifested, whether they be those of a hyperæmia of the meninges or simply of ataxia, I apply blisters to the lower extremities. I know that this practice, which I have always followed with great benefit, is not accepted by some of my distinguished colleagues, who only employ it when there are symptoms of meningitis, because, they say, they do not wish to create more points of irritation in the system than those which already exist, and that on a large scale, in typhoid fever of ataxo-adyamic form. Clinical observation has taught me, however, in this regard, that after the revulsive action of the blisters, the delirium and coma, the restlessness, the insomnia, the tremor of the limbs, upper and lower, and the other ataxic symptoms, diminish much in their intensity, and some of them even disappear. Among other facts I could cite in support of this practice, is one case in particular, witnessed by Doctors Pedro Affonso Franco and Guilherme Affonso—an extremely grave attack of typhoid fever, in which very marked signs of ataxia had appeared, the disease having lasted over four weeks. After the use of blisters, the delirium, which was intense and continuous, lost much of its intensity, and the patient, who had been entirely sleepless, slept three hours together. The revulsive treatment was employed in this case conjointly with tonic; and I am convinced that the complete recovery which followed was due in great part to the combination of the two, as well as to the means of nourishment I made use of and which prevented the adynamia (which had become well marked) from reaching its maximum.

After employing purgative medication; after fulfilling the primary indications, which consist in facilitating the elimination of the products of secretion vitiated by reason of the inflamed bowel-glands; correcting the hyperæmias which appear at the beginning of the disease (sometimes in one organ, sometimes in another), and moderating the violence of febrile heat,—I am accustomed to feed the patient, having regard to the state

of the digestive organs and the strength of the system. I commence by giving one or two chicken broths, and if the adynamia is pronounced I give six to ten ounces of boiled milk in three doses. The intestinal canal bears milk perfectly well; the diarrhœa is favorably modified; and the physical strength, which has a tendency to fail, is maintained at a certain degree of energy. The infusion of coffee, strong and very hot, is a means I almost always avail myself of, and with much advantage; as a diffusible stimulant it is very well suited to the ataxo-adyamic condition, and as a paralyzer of interstitial nutritive disintegration—that is, as a waste-restoring food (*alimento de poupança*)—it is a strong barrier against febrile autophagy. In an affection where the fever is intense and often lasts more than a month, the combustion of tissue produced by this fever is excessive: hence the emaciation, the marasmus, the annihilation of strength, the long period of convalescence, the cerebral anæmia with its delirium, the spinal anæmia with its symptoms of paraplegia, etc. Coffee, administered in small and repeated doses, is then a powerful resource in the treatment of typhoid fever after the end of the first week.

While I nourish the patient throughout the disease, and never leave him fasting, I am very rigorous in my concessions as to food when convalescence begins, and even during part of its duration. Bearing in mind the condition of the intestinal canal; also the fact, more than once verified, that ulceration of the ileum or cæcum persists, in spite of the disappearance of all other signs of the disease; bearing in mind that great labor of digestion on the part of the still ulcerated bowel may occasion an intestinal perforation, and consecutively a hyper-acute and promptly fatal peritonitis, as I have already remarked,—I do not permit the patient to take any food save in liquid or semi-liquid form, easy of digestion, and containing in small bulk a great abundance of plastic elements. Milk, boiled eggs, flour pap, soups, concentrated broths, the animal jellies, Liebig's extract, are the articles of food I prefer, together with full-bodied wines and coffee.

Whenever possible, the convalescence of a typhoid-fever patient should be passed in an elevated region, rich in vegetation, and shel-

tered from strong currents of wind. The base of Tijuca, the summit of Rio Comprido, the hill of Santa Thereza, and the Gavea,* are the suburbs to which I send convalescents, as soon as they can bear removal without risk.

Rio de Janeiro, Brazil.

CRIMINAL ABORTION OR FŒTICIDE.

BY C. C. MAPES.

My heart is awed within me when I think
Of the great miracle that still goes on
In silence round me, the perpetual work
Of Thy creation, finished, yet renewed
Forever.

—Bryant.

By the works of the Creator manifest about us we are continually reminded that while "in the midst of life we are also in the midst of death." Life at best is of short duration, and may be suddenly terminated by the snapping of a slender thread; it represents a continual struggle between anabolic and katabolic forces, and any disarrangement or disproportionate action on either hand results in a corresponding change in the phenomena of metabolism, which in turn produces its effect upon the functional apparatus of the individual. Death is inevitable, and represents the cessation of all vital functions; it may result suddenly from disobedience of Nature's laws, from disease or acts of violence; or it may, as the Creator intended, by strict observance of the laws of Nature be delayed to three-score years and ten, or more. Any violation of Nature's laws must necessarily produce its effect upon the economy.

In addition to the laws of Nature, we are constantly confronted, to greater or less degree, by moral, sociological and civil laws, all of which in their turn demand observance.

From an impartial and careful study and consideration of all these laws, as well as a review of modern scientific literature relating to criminal abortion (or fœticide) and infanticide, the natural inference would be that the commission of either of these crimes was of the greatest rarity, as only semi-occasionally do we find authentic reports of such cases, and less frequently are legal steps instituted

with a view of punishing the offender, whether legalized physician, charlatan, midwife, nurse, layman, or the mother herself. Convictions are conspicuous by their absence.

In this paper only the different aspects of criminal abortion, or fœticide, will be considered, leaving infanticide, though closely allied, for a subsequent contribution *dextro tempore*.

The operation of criminal abortion may be defined as follows: Inducing expulsion from the uterus of the products of conception, by any means whatsoever, during the period of utero-gestation, from the impregnation of the ovule to the maturing of the fœtus at full term. This definition is not intended to include those cases in which *accouchement forcé* becomes necessary *at full term* to preserve the life of the mother, the child, or both; nor rare cases of pelvic deformity which would render delivery of a living child absolutely impossible without Cæsarean section or symphysiotomy. In the latter class it is an open question whether it is justifiable to sacrifice the fœtus in the early stages of utero-gestation, thus obviating the necessity of subjecting the mother to operative measures that would be required to accomplish delivery were the pregnancy allowed to proceed to full term. *En passant*, however, I believe that cases are indeed few where abortion is imperatively demanded to preserve the mother's life, though many eminent authorities contend that the opposite view can be maintained.

It is a criminal act to administer to a woman, or cause to be taken by her, with intent to produce expulsion of the uterine contents (fœtus) at any stage of pregnancy, any poison, drug, or substance; or to use for the same purpose any instrument or other means whatsoever; or for the woman herself to use the same means, with the same intent. According to the laws of some States, any means employed with the *intent* to produce abortion constitutes the crime, whether or not the woman be actually *enceinte* at the time, and if pregnant, whether an abortion is produced or not.

The text of the Penal Code of New York (1884) bearing upon this question reads:

Section 294.—A person who, with intent thereby to procure the miscarriage of a woman, unless the same is necessary to preserve the life of the woman,

*All elevated places in the vicinity of Rio de Janeiro.—TRANSLATOR.

or of the child of which she is pregnant, (1) either prescribes, supplies, or administers to a woman, whether pregnant or not, or advises or causes a woman to take any medicine, drug or substance; or (2) uses, or causes to be used, any instrument or other means; is guilty of abortion, and is punishable by imprisonment in a State prison for not more than four years, or in a county jail for not more than one year.

Section 295.—A pregnant woman, who takes any medicine, drug or substance, or uses or submits to the use of any instrument or other means, with intent thereby to produce her own miscarriage, unless the same is necessary to preserve her life, or that of the child whereof she is pregnant, is punishable by imprisonment for not less than one year nor more than four years.

Section 297.—Any person who manufactures, gives or sells an instrument, a medicine or drug, or any other substance, with intent that the same may be unlawfully used in procuring the miscarriage of a woman, is guilty of a felony.

Section 318.—A person who sells, lends, gives away, or in any manner exhibits, or offers to sell, lend or give away, or has in his possession with intent to sell, lend or give away, or advertises or offers for sale, loan or distribution, any instrument or article, or any drug or medicine, for the prevention of conception, or for causing unlawful abortion, or who writes or prints, or causes to be written or printed, a card, circular, pamphlet, advertisement or notice of any kind, or gives information orally, stating when, where, how, of whom, or by what means, such an article or medicine can be purchased or obtained, or who manufactures any such article or medicine, is guilty of a misdemeanor.

Section 321.—An article or instrument used or applied by physicians lawfully practicing, or by their direction or prescription, for the cure or prevention of disease, is not an article of indecent or immoral nature or use, within this chapter. The supplying of such articles to such physicians or by their direction, or prescription, is not an offense under this chapter.

Section 191.—A person who provides, supplies, or administers to a woman, whether pregnant or not, or who prescribes for, or advises or procures a woman to take any medicine, drug or substance, or who uses or employs, or causes to be used or employed, any instrument or other means, with intent thereby to procure the miscarriage of a woman, unless the same is necessary to preserve her life, in case the death of the woman, or of any quick child of which she is pregnant, is thereby produced, is guilty of manslaughter in the first degree.

Section 190.—The willful killing of an unborn quick child, by any injury committed upon the person of the mother of such child, is manslaughter in the first degree.

Section 192.—Manslaughter in the first degree is punishable by imprisonment for not less than five nor more than twenty years.

Section 194.—A woman quick with child, who takes, or uses, or submits to the use of any drug, medicine, or substance, or any instrument or any other means, with intent to produce her own miscarriage, unless same is necessary to preserve her own life, or that of the child whereof she is pregnant, if the death of such child is thereby produced, is guilty of manslaughter in the second degree.

Section 202.—Manslaughter in the second degree is punishable by imprisonment for not less than one year, nor more than fifteen years, or by a fine of not more than one thousand dollars, or by both.

A foot-note relating to the paragraphs quoted reads as follows:

Causing the death of an unborn child in an attempt to produce miscarriage is not manslaughter under the statute unless the child has quickened. It is a misdemeanor to administer drugs, etc., to a pregnant female with intent to produce miscarriage; it is manslaughter to use the same with intent to destroy the child.

The text defines murder in the first degree as follows:

The killing of a human being, unless it is excusable or justifiable, is murder in the first degree when committed, either from a deliberate and premeditated design to effect the death of the person killed, or of another; or by an act imminently dangerous to others, and evincing a depraved mind, regardless of human life, although without a premeditated design to effect the death of any individual; or without a design to effect death by a person engaged in the commission of, or in the attempt to commit a felony, either upon or affecting the person killed or otherwise; or when perpetrated in committing the crime of arson in the first degree.

The intentional killing of a human being without provocation, and not in sudden combat, is murder, without regard to the degree of deliberation. It is enough that the intent to kill precede the act.

Murder in the second degree is defined thus:

Such killing of a human being is murder in the second degree, when committed with a design to effect the death of the person killed, or of another, but without deliberation and premeditation.

Murder in the first degree is punishable by death.

Murder in the second degree is punishable by imprisonment for the offender's natural life.

The law of the State of Georgia, bearing upon fœticide and abortion, is given in the following language:*

*Robert Campbell Eve, *Atlanta Medical and Surgical Journal*, 1894.

Section 4337 (a)—*Fœticide, How punished.* The willful killing of an unborn child, so far developed as to be ordinarily called "quick," by any injury to the mother of such child, which would be murder if it resulted in the death of such mother, shall be guilty of a felony, and punishable by death or imprisonment for life, as the jury trying the case may recommend.

Section 4337 (b).—*Use of Medicine, Assault with Intent to Murder.* Every person who shall administer to any woman pregnant with child any medicine, drug, or substance whatever, or shall use or employ any instrument or other means with intent thereby to destroy such child, unless the same shall have been necessary to preserve the life of such mother, or shall have been advised by two physicians to be necessary for such purpose, shall, in case the death of such child or mother be thereby produced, be declared guilty of an assault with intent to murder.

Section 4337 (c).—*Abortion, Punishment of.* Any person who shall willfully administer to any pregnant woman any medicine, drug, or substance, or anything whatever, or shall employ any instrument or means whatever with intent thereby to produce the miscarriage or abortion of any such woman, unless the same shall have been necessary to preserve the life of such woman, or shall have been advised by two physicians to be necessary for that purpose, shall, upon conviction, be punished as prescribed in section 4310 of the Code.

Section 4310 provides for a fine not exceeding one thousand dollars, imprisonment not to exceed six months, to work on the chain-gang, on the public works, or on such other works as the county authorities may employ the chain-gang, not to exceed twelve months, and any one or more of these punishments may be ordered in the discretion of the judge.

The Penal Code of Pennsylvania, Sections 87 and 88, delineating the legislation of that State pertaining to criminal abortion, is as follows:*

Section 87.—If any person shall unlawfully administer to any woman, pregnant or quick with child, or supposed and believed to be pregnant or quick with child, any drug, poison, or other substance whatsoever, or shall unlawfully use any instrument or other means whatsoever, with the intent to procure the miscarriage of such woman, and such woman, or any child with which she may be quick, shall die in consequence of either of said unlawful acts, the person so offending shall be guilty of felony, and shall be sentenced to pay a fine not exceeding five hundred dollars, and to undergo an imprisonment by separate or solitary confinement at labor not exceeding seven years.

*Wm. W. Porter, *Medical and Surgical Reporter*, Philadelphia, 1893.

Section 88 of the same Act provides for the penalty to be imposed for procuring or attempting to procure abortion where death does not ensue. The full text of the section is as follows:

If any person, with intent to procure the miscarriage of any woman, shall unlawfully administer to her any poison, drug, or substance whatsoever, or shall unlawfully use any instrument, or other means whatsoever, with the like intent, such person shall be guilty of felony, and, being thereof convicted, shall be sentenced to pay a fine not exceeding five hundred dollars, and undergo an imprisonment by separate or solitary confinement at labor not exceeding three years.

I quote the following from the Kentucky Reports, Court of Appeals, September, 1879:

It never was at common law a punishable offense to produce, with the consent of the mother, an abortion prior to the time the mother became quick with child.

The indictment does not allege that the mother was quick with child, nor does it aver that the potion was administered to destroy the life of the child, nor that such was the result produced by the potion. There being no statute, it is held that the indictment is not good.

The appeal is from a conviction and fine of three hundred and seventy-five dollars on indictment charging appellant with procuring an abortion.

[The term "quick with child" in the same case is defined as follows: "Quick with child is having conceived; with quick child is when the child is quickened." This distinction is also denied by a few eminent authorities.]

In contemplation of law, life commences at the moment of quickening, at that moment when the embryo gives the first physical proof of life, no matter when it first received it. . . . So far as my researches have gone I have found no precedent, no authority . . . which recognizes the mere procuring of an abortion as a crime known to law.

In the interest of good morals and for the preservation of society, the law should punish abortions and miscarriages, willfully produced, at any time during the period of gestation. That the child shall be considered in existence from the moment of conception for the protection of its rights and property, and yet not in existence, until four or five months after the inception of its being, to the extent that it is a crime to destroy it, presents an anomaly in the law that ought to be provided against by the law-making department of the government. The limit of our duty is to determine what the law is, and not to enact or declare it as it should be. In the discharge of this duty, and after a patient investigation, we are forced to the conclusion that it

never was a punishable offense at common law to produce, with the consent of the mother, an abortion prior to the time when the mother became quick with child. It was not even murder at common law to take the life of the child at any period of gestation, even in the very act of delivery.

[Judgment reversed, and cause remanded, with direction to dismiss the indictment.]

The following paragraphs are abstracts from Kentucky Reports, Court of Appeals, 1888:

Murder—Abortion.—Where the means to procure an abortion result in the death of the mother, the person using the means is guilty of either murder or manslaughter, and not merely of involuntary manslaughter. Where the act is done with no intent to inflict serious injury, and in such a way that it is not, *per se*, likely to so result, but, through negligence in the operation, death does ensue, the offense is but manslaughter.

So also (Blackstone), if one gives a woman with child a medicine to procure abortion, and it operates so violently as to kill the woman, this is murder in the person who gave it.

Another writer says: If one administers a drug to a pregnant woman, or does to her any criminal act, the object of which is merely to produce an abortion; yet if in consequence of this act, dangerous in its tendency, the mother dies, or the child is prematurely born, and dies from too early exposure to the external world, he is guilty of murder. (Bishop.)

Conceding it to be the common law rule that one is not indictable for the commission of an abortion unless the child has quickened, yet all the authorities agree that if, from the means used, the death of the woman results, it is either murder or manslaughter.

Section 1220 of the Kentucky Statute (1894) reads:

If any woman be delivered of any issue of her body, which, being born alive, would be a bastard, shall endeavor privately, by drowning or secretly burying the same, or in any other way, directly or indirectly, to conceal the birth thereof, so that it may not be known whether it were born alive or not, she shall be confined in the penitentiary not less than one nor more than five years.

Notes following Section 1220:

1. Abortion at common law, prior to the time the mother became quick with child, was not, if the mother consented, a punishable offense.

2. Aiders and abettors are not punishable under this statute.

3. Child need not be born alive. It is not material to the question of guilt whether the child be born dead or alive.

4. Indictment. Acts constituting offense must be charged; it is not sufficient to charge that the

accused "did feloniously conceal the birth of a bastard child, the issue of her body."

5. Intent to produce death. Although murder might lie for the death of the child, yet, in general, when the death was probably caused without guilty intent, the indictment should be under the statute.

Section 1149 of the Kentucky Statute (1894) reads:

Punishment for murder. If any person be guilty of willful murder, he shall be punished with death or confinement in the penitentiary for life, in the discretion of the jury.

Note following Section 1149:

Abortion—resulting in death of mother. Where the means used to procure an abortion result in the death of the mother, the person using the means is guilty of either murder or manslaughter, and not merely of involuntary manslaughter.

From the American and English Encyclopedia of Law, 1896:

By abortion is understood the act of miscarriage or producing young before the natural time; before the fœtus is perfectly formed; and to cause or produce an abortion is to cause or produce this premature bringing forth of the fœtus.

Under the statutes in most of the States it is immaterial whether the woman be quick with child or not, the criminal act being complete if done at any time during pregnancy. In *Michigan*, however, it is essential that the fœtus be quickened.

By statute in most of the States in the Union, where death of the woman ensues from the means used, the offense has been reduced to murder in the second degree, or to manslaughter.

At common law, according to the weight of authority, to cause the destruction of the child before it has quickened in its mother's womb was no offense, if done with the mother's consent. Although the common law for many civil purposes recognizes the existence of a child from its conception, it does not for the purpose of punishing its destruction recognize it as a living being until it has quickened and stirred in its mother's womb.

The willful killing of an unborn child after it has quickened is not a felony, except as it is rendered so by statute, but is a misdemeanor.

According to the better authority, if a person in attempting to commit an abortion causes a child to be born so much earlier than the natural time that it is much less capable of living, and it afterwards dies by reason of exposure to the external world, such person is guilty of murder.

In most of the States of the Union a woman who commits an abortion on herself is guilty of no crime, she being regarded rather as the victim than the perpetrator of the crime. But in some of the States, and in *England*, she is liable to the same punishment as one who commits an abortion on another.

The Reference Handbook of the Medical Sciences, 1895, states that in earlier days the question as to the extent to which the criminality of foeticide was affected by the degree to which gestation had proceeded was one of considerable importance. By the common law a distinction was made between the destruction of an unborn "quick" child and that of one not yet arrived at the period of quickening. The stage of pregnancy at which the child should be considered "quick" was vigorously debated by different writers and schools. Among the Stoics it was considered that the soul was not united to the body before the act of respiration, and while the ideas of the Stoics were popular the destruction of a child *en ventre de sa mere* was not regarded as a criminal act. Periods ranging from three days to ninety have been assigned by different writers as the time within which quickening occurs. In England the common law considered life not to commence before the infant was able to stir in its mother's womb, and, until recently, the English law punished with death the procuring of abortion after quickening, while the same crime anterior to quickening was regarded merely as a felony. Throughout all European nations, save England, and in some of the States of the American Union, the same pernicious distinction is to-day incorporated in the statutes. However, the tendency of modern legislation is to do away with this distinction. In England this has already been done by a statute which makes an attempt to abort criminal, even though the woman be shown not to have been pregnant at the time. In the United States, legislators, realizing that the civil rights of the unborn child are protected, that it can have a guardian appointed, and can receive property by bequest or deed, have been inclined to enact laws for the preservation of its personal rights to life. In Massachusetts, the Supreme Court having held that at common law it was no offense to produce abortion, unless there was viability, the Legislature immediately cured the supposed deficiency by statute. The Massachusetts statute presents the law as it is substantially in all the States in which the viability of the child is not regarded as essential to the criminality of the offense. The statute reads as follows:

10. Whoever with intent to procure miscarriage of a woman unlawfully administers to her, or causes to be taken by her, any poison, drug or medicine, or other noxious thing, or unlawfully uses any instrument or other means whatever, with the like intent, or with like intent aids or assists therein, shall, if the woman dies in consequence thereof, be imprisoned in the State prison not exceeding twenty nor less than five years, and, if the woman does not die in consequence thereof, shall be punished by imprisonment in the State prison or jail, not exceeding seven years nor less than one year, and by fine not exceeding two thousand dollars.

11. Whoever knowingly advertises, prints, publishes, distributes, or circulates, or knowingly causes to be printed, advertised, published, distributed, or circulated, any pamphlet, printed paper, book or newspaper notice, advertisement, or reference containing words or language, giving or conveying any notice, hint, or reference to any person, or to the name of any person, real or fictitious, from whom, or to any place, house or shop, or office where any poison, drug, mixture, medicine, or noxious thing, or any instrument or means whatever, or any advice, direction, information, or knowledge may be obtained for the purpose of causing or procuring the miscarriage of a woman pregnant with child, shall be punished by imprisonment in the State prison or jail not exceeding three years, or by fine not exceeding one thousand dollars.

This is the law, says the Handbook of the Medical Sciences, as prescribed in the majority of the States of the Union, but in some, notably New York, the old common law distinction between the killing or attempting to kill an unborn quick child and one not quick is still retained; but the courts have not agreed as to the exact stage of pregnancy at which the child should be considered quick. Great latitude is permitted the judge in presenting to the jury the law on the subject.

In this connection a celebrated legal writer says: "The weight of medical authority is that quickening is a mere circumstance in the physiological history of the foetus, which indicates neither the commencement of a new stage of existence nor an advance from one stage to another; that it is uncertain in its periods, sometimes coming at three months, sometimes at five, sometimes not at all; and that it is dependent so entirely upon foreign influences as even to make it a very incorrect index, and one on which no practitioner can depend, of the progress of pregnancy."

In discussing the duty of the physician to his patient, the same work has this to say:

"There can be no question but that he (the physician) is under the most stringent moral obligation, not only to refuse his co-operation, but also to throw all possible obstacles [?] in the way of the crime contemplated, for it is a crime under all circumstances, except when called for to save the woman's life. It necessarily involves the destruction of the embryo, and, potentially, the murder of a citizen. This should be explained to the woman, for in the majority of instances she has no idea of the enormity of the act, and in many cases it will dissuade her from further pursuit of her plan; at all events, he must refuse point blank to render any aid, and he should not even give a placebo to gain time, for by so doing he may render himself criminally liable, courts having ruled that any attempt at producing abortion, no matter how inadequate, implies guilt; failure, and even proof of the non-existence of pregnancy, being no presumption of innocence, provided only the intent is proved."

The most important aspect of the whole subject deserves consideration at this point, viz.: At what period may the product of conception be termed a living human being? Legally the foetus is not alive until quickening has taken place, usually between the fourth and six months of utero-gestation. This view seems to be generally held by the lawyer, the theologian, and especially the layman, but when physiologically and scientifically considered the utter fallacy of such a theory becomes plainly evident. We know that the period of "quickening" varies considerably in different pregnancies, and many women have been delivered at full term of living, healthy children, without the phenomena of "quickening" having been observed by them. According to the strict letter of the law of some of the States, could the act of criminal abortion be considered in such a case, the woman not being "quick with child" or "with quick child"? Again, it will be observed that there is a plain contradiction in some of the statutes quoted, for one paragraph reads, "whether she be pregnant or not," and another, "quick with child." I fail to understand how such discrepancies can be reconciled, and the law be properly interpreted and applied. Without life there can be no growth, no continuation of devel-

opment; from a microscopic, seemingly inert, protoplasmic mass (ovum), impregnated with the vital microscopic principle (spermatozoön), springs the highest order of mysterious and wonderful creation, man; could such a creation take place, could such growth and development supervene, without life? Let those who believe that the foetus does not possess vitality until the fifth or sixth month of utero-gestation answer this query, and substantiate their statement by indisputable physiological and scientific facts. I maintain, however, that such a position has nothing more valid or tenable as a basis than supposition or theory, and therefore cannot be substantiated or proven. Growth and development must be accompanied by vitality and animation—these phenomena are inseparable. I am fully cognizant of the insignificance attached to the early products of conception from the standpoint of the layman and others, and recognize that they firmly believe in the inanimate existence of the foetus until a certain stage of development has been reached. It is especially unfortunate that mothers, generally, in all classes of society, cling to this fallacious idea, and are consequently led to the commission of acts at the thought of which they would shudder did they understand or appreciate their significance.

It would seem, from a study of the legislative paragraphs quoted, that the law of Kentucky (1894) is strangely defective, in that there exists no statute covering criminal abortion. At common law it is held that it is not a punishable offense to perform an abortion upon a woman, with her consent, provided the woman herself survives the operation. The performance of a criminal abortion must almost necessarily result in destruction of the foetus, and the operation in the majority of instances is undoubtedly performed with such *intent*, yet according to the common law the offense is not punishable. How can this fact be reconciled with the paragraph on Homicide which reads that "murder is punishable by death or imprisonment for life, in the discretion of the jury"? Murder is defined as the deliberate taking of human life! I would ask, then, is not the deliberate destruction of the foetus, at any stage of utero-gestation, according to moral and Divine laws, if not

according to the Kentucky statute, the deliberate taking of a human life? Is it not murder? My powers of comprehension and appreciation may be markedly deficient, but I must confess that I cannot, by the most painstaking and careful study, make the differentiation which it would seem has been conceded by those to whose hands the framing of our laws has been entrusted. The law should apply alike to the mother and her unborn child, though the latter has not arrived at an age at which it may assert its rights. A child has an inherent right to be born, whether the sexual congress which engendered it were licit or otherwise; it took no part in such intercourse, and has a moral and legal right to its existence; to deliberately destroy it is murder; *de integro, de jure*, and *de facto*, the embryo—the fœtus if you please—is a legitimate issue of a concurrent act between its progenitors; whether such an act in itself were legitimate or not cannot be considered in evidence; the fœtus is an innocent habitat of Nature's dwelling, a *terre filius*, and is not in any way responsible for the act which resulted in its inception. If the law has been overstepped, if by illicit sexual congress a human being has been engendered, the responsibility rests not with the embryo, but with the authors of its conception. There is no Divine, moral or civil law which can compel a woman to have children unless she subjects herself to the process by which they are engendered.

Horrible dictu, it must be confessed that in not a few instances criminal abortions are performed by legalized physicians; but, unfortunately, not all legalized physicians are reputable practitioners of medicine, any more than are all ministers of the gospel true Christians. The operation is attended by so much secrecy on the part of all concerned that sufficient evidence for convicting the perpetrator is in most cases unobtainable, even where there is a statute fixing the penalty. The professional abortionist is usually an ostracised, disreputable, dishonest, degenerated member of the medical profession, without conscience, without responsibility, without standing in his community except among his clientele, without regard for moral or legal obligations, violating each at every turn, without respect for himself, the Creator,

or his fellow man. Not infrequently the operation is performed or attempted by a charlatan, whose knowledge of the human economy has been largely acquired from the family almanac or some other equally important text-book; or by an ignorant midwife who does not know a uterus from a potato, nor a cervix from a funnel, yet who attends women in labor—and the strangest part is that they often survive in spite of the midwife and her methods. I have known of not a few instances where a steel spindle, used by an ignorant midwife to produce an abortion, has been thrust entirely through the walls of the uterus, resulting in fatal peritonitis. In one case post-mortem examination revealed that the instrument had made a veritable "pepper-box" of the cervix, and in addition to this had been forced entirely through the uterine wall at four different points. The operation was performed without an anæsthetic, and the victim's suffering must have been intense. In another case a short knitting-needle was introduced into the uterine cavity, and becoming engaged could not be withdrawn. The patient, becoming alarmed, consulted the family physician, who had some difficulty in removing the foreign body with forceps. Such cases occur more frequently than most of us are willing to admit, yet the perpetrators go unpunished. Criminal abortion is also frequently attempted by the pregnant female herself, but in most cases it results disastrously and the family physician is called in great haste; and it may be said *en passant* that there is always a *suggestio falsi* in the history given him.

No attempt has been made in this article to differentiate between criminal abortion and fœticide; nor is a separation of the terms necessary, as they are largely interchangeable. If a criminal abortion be performed at any stage of pregnancy, except perhaps the latter six weeks, death of the fœtus is certain, therefore it becomes fœticide; and in the majority of instances criminal abortion by any means whatsoever, no matter by whom performed, nor at what stage of pregnancy, is with the *intent* of destroying the fœtus; therefore the necessity does not exist for differentiating between the two terms.

Destroying the products of conception by

artificial means is not an institution of recent introduction, but is mentioned by nearly all the older writers. The practice is recorded in the earliest history of all nations, it is said, with the sole exception of the Jews, and has been so extensively employed among "most of the nations of Africa and Polynesia that it is doubtful if more have died in these countries by plague, famine, and the sword. . . . It was common in Europe through the Middle Ages and still prevails among the Mohammedans, Chinese, Japanese, Hindoos." It has been spoken of favorably, or defended, by some of the older authors, as a means of preventing the increase of offspring and concomitant responsibilities in a given community, for various reasons, and has been denounced by others since the earliest history. It is a *vexata quæstio* just at what period in the world's history and in what nation the practice originated, and whether within the *vinculum matrimonii* or otherwise. At the present time its prevalence is so universal, both in and out of wedlock, that it might well be termed an international vice, though reliable information respecting its actual commission can be obtained only by the utmost persistence and sagacious tact. However, one author* states: "It is so common that it is now openly acknowledged by its perpetrators, for the commission of which the physician is even eulogized by his patient and applauded by his friends and colleagues." The same writer quotes Swayne as follows: "Husbands seek it for their wives; libertines ask it for their mistresses; seducers seek it for the unhappy victims of their licentious passions; wives—aye, mothers even—beg it for themselves; and physicians there are who advise it and practice it not only as a *dernier ressort*, but as an expeditious means of relieving nausea and vomiting in pregnancy, and therefore call it justifiable."

Reproduction is the first law of Heaven, hence the commandment, "Be ye fruitful and multiply," which is really of greater importance than all the other ten combined. It is the agency through which the race is promulgated and continued, the human manifestation of that Divine law which governs our

existence. According to the teaching of the Bible, the soul or *anima* is coeval with life or *vita*: "The Lord breathed into his nostrils the breath of life, and man became a living soul." He made man in His own image, and man is unauthorized to destroy that which it is not within his power to create; therefore to bring about destruction, by any means whatsoever, of the products of conception, is a transgression of the Divine as well as the natural and statutory law. *Omne vivum ex ovo*, and deliberate destruction of this germ once implanted within the human receptacle in which Nature intended it should develop into that wonderful creation, man, is a crime against instinct, against Nature, against that Divine agency which gave us power of reproduction, against moral, sociological and civil laws. *Ab ovo*; the human embryo is a *living human being*, and at whatever stage of uterogestation the operation of criminal abortion is performed, the crime is *murder*, because it results in the death of a human being, however small or insignificant it may be. It is in direct violation of the Divine commandment, "Thou shalt not kill," whether perpetrated by the woman herself or by others, whether by means of drugs or ingenious instruments constructed for the purpose. During the trial of an abortionist,* the operation performed by him having resulted in death of both mother and *fœtus*, the judge in charging the jury declared that "Every act of procuring an abortion *is murder*, whether the person perpetrating the crime *intended* to kill the woman, or *merely to feloniously destroy the fruit of her womb*."†

I cannot conclude this article without further reference to the moral aspect of criminal abortion. We all recognize that there are many things which are legally right and morally wrong; civil law is subject to frequent revolutions, while moral law is eternal, immutable, in its significance. Many legal lights have contended that the operation of criminal abortion was simply an evil, not coming under the classification of crime either morally or legally. Those who endeavor to

*E. Van Goidtsnoven, *Southern Medical Record*, Atlanta, Ga., 1894.

*Proceedings of the Philadelphia County Medical Society, *Medical and Surgical Reporter*, Philadelphia, 1893.

†Italics mine.

maintain this view may be sincere in their convictions, but they are certainly far from right in their moral and legal premises. In closing I cannot do better than quote a few paragraphs from published articles to which I have frequently referred in compiling this paper, with humble apologies to the authors thereof:

"It would be inhuman and cruel to stand by and see a woman die of exhaustion. It would be murder to kill an innocent child that we might save a woman from dying. Every available means that medical skill and science can suggest should be resorted to in order to rescue both lives from danger. Morality teaches us that two wrongs do not make one right. Any effect directly intended, no matter how good or legitimate, can never justify a means that is in itself wrong."*

"Criminal abortion and infanticide, the two most inhuman of crimes, directly opposed to and in violation of the Divine laws of God, of Nature, and of man, are appreciated doubtless by all in the abstract sense, yet I dare say that few of us are in possession of a concrete knowledge of these, of all evils the most horrible and abandoned. The latter is not nearly so common as the former, but of relatively frequent occurrence, its practice being confined, in a vast majority of instances, to the larger cities, notably London, Paris, New York, etc. Not until we view this subject in its entirety and subject its direct and collateral effects to an analysis are we awakened from our lethargy of indifference to a realization of the direful results entailed morally, socially, and physically. They are not to be exaggerated, and no language that could be used, be it never so potent, would accentuate with sufficient force the burning necessity of active co-operative service on the part of medicine and law in the employment of every means directed towards the suppression of these evils. 'Tis unquestionably culpable remissness on the part of the physician that connives at the existence of these crimes. His position should not be a neutral one. He should ever be ready, where there is tangible evidence of guilt, to put it to a test; and to suffer it to pass unnoticed is to criminate

himself, if not in the sight of man, certainly in the sight of God.

"I hold that one endowed with the inherent attributes of a true physician is not satisfied with the mere administering to physical ills and the amelioration of suffering. To morality he owns an inviolable allegiance, and ever aims to promote, among his associates and those to whom he is called upon to minister in the darkest moments of suffering and despair, the highest and loftiest sense of Christian morality."*

THE SURGICAL TREATMENT OF DEAFNESS AND TINNITUS AURIUM.

BY DOCTOR E. J. MOURE.

Prior to the introduction of antiseptics and asepsis, a simple perforation of the tympanum was apt to be followed by suppurative accidents sufficiently intense to disquiet the author of the puncture. I still recall the case of a patient suffering from dry otitis, in whom I perforated the tympanum for the purpose of relieving "buzzing of the ears;" and the inflammatory symptoms that followed, accompanied by intense pain, fever, and extremely abundant suppuration which persisted for several weeks.

Resection of the tympanic membrane has now become a commonplace operation. Surgeons no longer hesitate, in cases of chronic suppurative inflammation with fungous degeneration of the mucous membrane, to curette the suppurating focus; they even remove those portions of bone that have been attacked by caries or by osteitis. Several years ago I reported the good results that followed ablation of the ossicles in otorrhœa; my views have not since been modified, and have moreover been generally adopted.

But operations on the tympanum have not been confined to cases in which they were absolutely indicated, for during recent years there has been, in some circles, a disposition to operate on non-suppurating ears for simple thickening of the drum and of the membranes of the fenestræ, or of the articulations of the ossicles, for the purpose either of relieving tinnitus or improving impaired hear-

*E. Van Goidtsnoven *loc. cit.*

*Robert C. Eve, *loc. cit.*

ing; some have even sought to invoke intratympanic surgery to arrest progressive deafness, and for the relief of dry chronic median otitis and sclerosis.

Without describing all the alterations which accompany these different maladies, I will recall the fact that the principal lesions consist in thickening of the tympanum; in atrophy of several portions of this membrane (most commonly, in grave cases) or of the entire membrane, which is reduced to a veritable onion-peeling process; or in varied synechiæ uniting certain points of the tympanum with the drum, or uniting the ossicles among themselves. It is especially the auricular surfaces, riveted together by ligaments, which impart to the chain such a stiffness that hearing is thus more or less compromised. So long as the pathological modifications attack only the tympanum, the articulations of the malleus and incus, or of the incus and stapes, if the latter rests mobile on the rim of the fenestra ovalis, it is not to be doubted that the disturbance of the labyrinthic liquid is yet relatively easy to produce, and that hearing remains fairly good; but when the annular ligament thickens in its turn, when synechiæ supervene between the branches of the stapes and the border of the fenestra, in proportion as the base of the stapes unites by synechia or by ossification with the fenestra which it covers, straightway the buzzing and the deafness assume a serious and often definitive character.—I do not speak of the round fenestra, since this has always been somewhat overlooked in the discussions of these various morbid processes.

Otologists have sought to deal with these different alterations, some by perforating or removing a greater or smaller part of the tympanum, which generally re-forms after a certain time; others by suppressing the synechiæ, the entire tympanum, the malleus and the incus; others again by essaying to mobilize or even to remove the stapes. It is to this latter ossicle, particularly, that modern experiments have been applied, for it stands in direct relation with the receiving apparatus of sound, the labyrinth. Further, it has been supposed, perhaps with reason, that the improved hearing obtained by measures applied to other parts of the chain was due in reality to the disturbance produced on the table of

the stapes, which was more or less pulled about during the operation.

For several years, as the result of the experiments of Kessel, the simple, direct mobilization of the stapes was fervently advocated by many French otologists, notably Boucheron and Miot. But this operation has had its day, inasmuch as the improvement obtained is too often transient, or due, not to simple mobilization, but to complete ablation of the stapes. Thus the results have been extremely variable and often contradictory, and while, at times, deafness was temporarily ameliorated, not infrequently the condition was aggravated.—In most cases ablation of tympanum and ossicles, including the stapes, was performed through the auditory canal, but Stacke (imitating Kuster and Bergmann) bared the auricle and the cartilaginous auditory canal in such a way as to expose the entire drum and the postero-superior edge of the tympanic bony frame which conceals from sight the *logette* containing the ossicles. In breaking down with the chisel or the gouge this species of wall, the head of the malleus and its articulation with the incus and the stapes is uncovered. Stacke proposed this operation as one that would permit of reaching the entire chain of ossicles—an operation that has undergone more or less modification at the hands of others. In 1892 Schwartze in this way not only removed the tympanum, malleus, and incus, but also the stapes which was bound to the oval fenestra by a bony adhesion so considerable that it was necessary to break the edge with a chisel; but the results were far from satisfactory from an auditory point of view. A little later, Blake of Boston reported twenty-two cases of ablation of the stapes, adding that most of the patients operated upon for sclerosis or dry otitis had their condition aggravated, and often complicated by vertigoes which were before unknown. Garnault cites three cases of stapedectomy—for hypertrophic otitis, cicatrized otorrhœa with synechiæ, and sclerosis—the latter at least almost a failure.—It is well to remember that Garnault sometimes encountered great difficulty in reaching the stapes by the auditory canal, and that it often became a necessity to follow Stacke's method. Later Kessel published a report asserting that under favorable circumstances he was

able to improve the hearing of murmured language; and Garnault has more recently mobilized and extirpated the stapes by the mastoid channel.

I have thus explained the origin of an operation that is applied to a category of affections incapable of being modified by medical treatment. The question is, whether surgery offers anything better, and whether it is capable of improving the hearing of the deaf in whom the labyrinth is intact, and the sound-transmitting apparatus alone involved? This is quite difficult to settle definitely. A single fact is established, however, viz., that the tympanum and the chain of ossicles may be removed, including the stapes, not only without compromising the life of the patient, but often without much affecting his hearing; it is now known that the plate of the stapes is replaced little by little by a fibrous membrane which protects the labyrinth and prevents it from communicating directly with the drum.

Judging stapedectomy from the standpoint of its result on auditory function—eliminating the cases in which the intervention is intended to break the cicatricial synechiæ following tympanic suppuration (which have become dried for a greater or lesser time), and considering only the deafness following the sclerous process—one is inclined to be very reserved as to its advocacy, inasmuch as the operation is incapable of accomplishing anything in the sclerous process itself, the pathology of which is unknown, and there are cases in which ossification, in spite of every treatment, will succeed in filling the oval fenestra, as it does when the plate of the stapes is left in place. The labyrinth itself will finally, little by little, be invaded by the progress of the disease, to say nothing of the alterations of the round fenestra, which also may undergo pathological modifications of profound importance in relation to hearing. The rôle of this fenestra, to be sure, is much less useful to audition, by reason of its anatomical relations, than is that of the oval fenestra, since the latter is placed at the entrance of the vestibule and of the entire sensory apparatus of the ear; but it is none the less true that the ossification or disappearance of the round membrane must react injuriously on the auditory func-

tion. The ablation of the stapes cannot exert any influence on the course of the lesions of this region; and, if the baneful results of the operation are ignored, and one only keeps in mind those cases that have had favorable termination, the evidence still is unsatisfactory. When the drum is widely opened by Stacke's method or its derivatives, the cicatrization of the wound does not proceed similarly in all subjects, and while with some the cavity remains open and in easy communication with the osseous auditory canal, in others the bony frame is little by little replaced by a very dense cicatricial fibrous tissue, which inevitably must fill up the oval fenestra, thus materially modifying in greater or less degree the results that appear immediately after operation.

I need not dwell on the incidents of operation—on the possibility, for example, of touching the facial nerve, which is situated exactly above the border of the oval fenestra,—but may emphasize the difficulty which is often experienced in seeing clearly, and *a fortiori* removing, the stapes. It may even happen that in the traction exerted its branches will be fractured; moreover it is sometimes necessary to disengage the plate buried or in part soldered with the fenestra, which necessitates the use of the gouge and the risk of either breaking the base of the ossicle in the vestibule or bursting a piece of the fenestra whose relations with the organ of audition and with equilibrium are of the most intimate and important nature. Finally, despite the most perfect electric illumination, the most complete hæmostasis, the manœuvres at the base of the canal are very difficult and must be made with a very light, practiced, and prudent hand, if the operator does not wish to run the risk of producing serious and generally irreparable disturbances.

In *résumé*, aside from the question of surgical intervention on the tympanum, so far as the acute or chronic suppurative inflammations of this region are concerned: if one is authorized, or even if one must not hesitate, to intervene actively in these regions to cure an otorrhœa rebellious to medical treatment by injections, instillations, powders, etc., we must, on the other hand, for the present remain very reserved with respect to interventions whose sole purpose is to ameliorate the

progressive deafness of sclerosis or of dry chronic otitis with arthritis or ankylosis of the stapes.

In the present condition of otological science it is impossible to assure an operable patient that the ablation of the ossicles, including the stapes, will definitively improve his hearing, and that in all cases his affection will not be aggravated by the very operation itself, especially if the latter be made to include the oval fenestra. It is well to add that this observation does not apply to synchiae or cicatricial ankyloses, which are, on the contrary, fit subjects for the most varied operations.

Paris, France.

GONORRHOEA.

In these days it is almost impossible to pick up a medical journal without finding a "specific" for this malady; but, alas, like most *specifics*, they are of very little practical utility. The latest remedies suggested are "argenin" (claimed to be a silver albuminate) and silver *citrate*. The former is fathered by Doctor Swinburne, who, in the *Journal of Cutaneous and Genito-Urinary Diseases*, recommends the use of a ten-per-cent. solution in the acute stages; he declares "the inflammation is allayed and discharge rapidly diminished." Next is the recommendation of Doctor Oscar Wuter, of Berlin, who employs a one-to-8000 solution of silver citrate, four times daily, gradually increasing the strength of the injections. He declares the treatment "should be begun early," and that the drug "is readily borne by the urethral mucous membrane, causing no noteworthy irritation or increase of the inflammation;" further, that its action "is deep-reaching, without injury to mucous membrane."

We doubt if any practitioner will realize better results from these two new agents than from the older and more familiar drugs. Indeed, as good if not better results are obtained by continued douching of the urethra with water as hot as can be borne (at 115° F. if possible) for the space of half an hour, at least twice daily, not neglecting to wash out the bladder, if needs be, and regulating the functions of digestion and excretion.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., NOVEMBER 25th, 1896.

Editorial.

CANCER AND MEAT DIET.

A pseudo-medical and hygienic exchange has found the cause of cancer, and likewise the reason why it is "four times greater now than it used to be half a century ago." The perspicuous writer has also discovered that there is a very material decrease in the death-rate from phthisis and tuberculosis as these malignant growths become more and more in evidence—in fact, that it is a "curious paradox" that a high cancer mortality is an indication of good sanitary conditions. Finally, it is pointed out that the "gluttonous consumption of meat which is such a characteristic feature of the age may be regarded as especially harmful; that meat-consumption in England has now reached the amazing total of 126 pounds per head per year. Of course, when such excessive quantities of such highly stimulating forms of nutriment are ingested by persons whose cellular metabolism is defective, it excites those parts of the body where vital processes are still alive, such excessive and disorderly cellular proliferation will eventually result in cancer."

All of which is, no doubt, "very fine oysters," as Captain Marryatt would say, but a little weak in the shell. A very cursory acquaintance with the history of his native land would have shown this English candidate for pathological honors that the consumption of meat in Queen Bess's time was something like four times that of to-day, and that even fair damsels, maids of honor, and such, had formerly no difficulty in "getting

away" with from four to six pounds of beef and a gallon of beer—to say nothing of such side dishes as one or two pheasants, half a dozen thrushes, and indigestible pastries and pies innumerable—at a single sitting. This disease of civilization—cancer—is almost unknown among the Guachos of the Pampas of Argentina and Paraguay, and yet these people devour enormous quantities of "such highly stimulating forms of nutriment" as beef and mutton; in fact, they seldom feed on anything else, and are apt to wash it down with bowl after bowl of boiling hot maté and (when they can get it) quarts of villainous *caña* (native rum). We suspect our friend is one of the "anti" and vegetarian ilk who consort with short-haired women and long-haired men; that he (or she) has a special self-constituted mission to reform the universe, and prefers to first "tackle" such small and insignificant sciences as pathology and physiology. Doubtless he, she, or it, if allowed, would speedily prove the millennium can arrive only when all the human race, *a la* Nebuchadnezzar, has been turned out to grass.

EFFECTS OF IMAGINATION.

It is notorious that mental impression may be a powerful physiological or pathological factor; medical men do not recognize this fact as often as they should, but utilize it chiefly in the realm of anecdote.

For some months a story has been going the rounds of the medical press to the effect that a man waking up at night, with a feeling of suffocation, broke a bookcase door, supposing it to be the window, and obtained immediate relief. The tale is an old one, but at least has the merit of both possibility and probability.

A very peculiar circumstance came under the notice of the editor of this journal some years since. A lady, convalescing from puerperal eclampsia, suffered from insomnia, and after the gamut of remedies had been pretty well run it was decided to prescribe small doses of morphine acetate. Being informed of the fact, she made strenuous objections, declaring her inability to take morphine in any form or dose without it producing certain very unpleasant phenomena. This was pooh-poohed as being largely imagina-

tion, particularly as the proposed dose would not exceed one-sixteenth of a grain, and was to be repeated not oftener than every two hours. For convenience the morphine was made into pills, at the bedside, with a little soft extract of gentian. On paying the customary visit the following day, loud complaints were made of the effects of the drug, which had, as the lady assured the practitioner, induced all the ills she had so much dreaded. The doctor apologized, remarking that he would give no more morphine, but seek some other hypnotic. On passing into the hall he was followed by the nurse, who informed him she had doubts whether the lady had taken any of the pills or not; they had been placed in the cover of a collar-box atop of a tumbler two-thirds filled with black mustard seed, and had been accidentally upset. The doctor returned to the room, emptied the tumbler of mustard seed, and found *every pill* intact; consequently the lady had taken nothing but two mustard seeds. The lady was so ashamed of this *contretemps* that she insisted upon taking the morphine the coming night, when it acted most charmingly.

THE BRITISH MEDICAL ASSOCIATION IN 1897.

It is well known that this organization will hold its next session in Montreal, and it has been suggested the Canadian Medical Association change the date of its meeting to coincide with that of the trans-Atlantic association. Certainly, this would be only an act of proper courtesy. The *Western Medical Review* likewise suggests the American Medical Association could profitably postpone its sessions, and change the place of meeting, so as to join with the other two at Montreal. This is certainly worthy of serious consideration. There is no reason why, as the *Review* intimates, this procedure on the part of the American Medical Association should not obtain. It would be a most graceful concession on the part of the representative medical body of the United States, and would likewise result in material benefit to all individuals concerned. If there cannot be joint sessions of the three greatest English-speaking medical associations of the world, why not have them take the floor in rotation—that

is, let one association open the day following the closure of the one preceding?

There are many reasons why this should be done, not the least of which is that few American physicians understand their English brethren, and the latter would learn to appreciate the former in a degree which has hitherto been practically impossible; again, the Canadian practitioners are an intermediate representative class, as it were, presenting neither the extremes of the medical men of the United States or those of their British brethren.

We feel assured this measure will meet with the approbation of every member of each of the three associations interested; and if it is to be accomplished, the ball must be set rolling immediately, since the details will require a deal of correspondence and consultation. Active measures, in so far as the two American associations are concerned, should emanate from the presidents and secretaries of the respective bodies.

INFUSION OF DIGITALIS AS A GENERAL STYPTIC.

Recently, Doctor George Foy of London gave unalloyed praise to the action of digitalis in menorrhagia, asserting the drug to be more effective "than ergot, golden-seal, ragwort, viburnum, and many others."

In one case where myoma was detected and the patient refused an operation "the result of the menorrhagia was awaited with a dread that it might cause her death. . . . A few days after the last examination the flow commenced and in amount resembled a post-partum hæmorrhage. With a short continuation of such a profuse bleeding the patient would have died. With the flow the uterus enlarged very considerably, and a round and painful tumor became prominent where the myoma was found."

Doctor Foy began giving tablespoonful doses of digitalis infusion every three hours until eight potions were taken. "The effect of the infusion was very marked." After the second dose "the discharge began to decrease, and after the fifth it had altogether ceased." When the eighth dose was taken, the patient complained of the toxic effect of the drug, the stomach became irritable, the

head throbbed and she had great headache, and the pulse fell to 50. The dose was now reduced to a teaspoonful three times a day.

"Since the last hæmorrhage the usual monthly change comes normally, and during the whole period she attends to her household duties. She has regained color and strength and is free from all pains and aches which attend on weakness."

Doctor Foy has prescribed digitalis in eight other menorrhagic cases, none so severe, however, as the one just outlined, but all sufficiently grave to be dangerous, and in every instance the infusion in teaspoonful to tablespoonful doses, according to the severity of the attack, gave good results.

VARIATION IN CREOSOTE PILLS.

In the *Apotheker Zeitung* appears an examination of nine commercial samples of creosote pills by Doctor Beckurts. The variations in one hundred pills of each sample were as follows:

	Claimed.	Actually Present.
I.....	5.0 Gm.	4.92 Gm.
II.....	2.5.	2.30
III.....	10.0	9.60
IV.....	5.0	4.70
V.....	5.0	1.65
VI.....	5.0	2.25
VII.....	5.0	3.14
VIII.....	5.0	4.30
IX.....	5.0	4.70

The moral is, avoid goods that are cheap, for they are usually "nasty;" also make it a rule to patronize the manufacturer who is known to be honest. In medicine as in everything else "the dearest" is usually "the best."

DILATATION OF PREPUCE VERSUS CIRCUMCISION.

Doctor Stewart, of Philadelphia, has devised a preputial dilator which "consists of four bevel-edged plates attached to a curved forceps-handle," a device he claims to be very successful as a substitute for circumcision.

The writer employed just such an instrument a quarter of a century ago, and though it secured a certain amount of success the results in the main were rather of an unsatis-

factory nature, and in the majority of instances circumcision was ultimately demanded. The fact is, the force of the dilatation must be such as to lacerate the tissues, else their natural elasticity will cause speedy contraction, thus losing all that has been gained.

In very young children the dilator may answer fairly well, if employed daily for a considerable period, and if measures be taken to retain the prepuce in the extreme of dilatation until the instrument is again applied; but this would entail an amount of routine work and inconvenience that few children, their caretakers, or the physicians are willing to consider, much less undergo.

The procedure, in so far as phimosis in the adult is concerned, is utterly useless. The device has its uses, however, in the spontaneous phimosis that sometimes appears as a concomitant of gonorrhœa or the initial lesion of primary syphilis.

A HYGIENIC SEWING-MACHINE TREADLE.

A recent issue of the *Medical News* announces an improvement to the sewing machine "which will be joyfully welcome to all of us who have working women as patients."

The description given is as follows:

The old treadle, with its up-and-down movements of the entire limb, and wearying, cramping strain directly upon the muscles of the calf and front of the thigh, and indirectly upon the lumbar region, is to be abolished, and its place taken by a hanging platform, swinging pendulum-fashion. Upon this the foot rests easily and is swung backward and forward, the momentum being furnished mainly by the weight of the foot alone, instead of by that of the entire limb as before. The thigh remains almost motionless, and the economy both of effort and comfort is most decided. Either foot can be used alternately or both together, thus giving relief from the monotony of the constant movement.

As to the foregoing being an improvement, we would call the attention of our contemporary to the fact that it is more than a quarter of a century old; that an attempt was made to introduce it in the factories of Massachusetts late in the sixties and early in the seventies; but with the conservatism which sometimes seizes the sex, the female

employés almost unanimously refused to use the new treadle, males alone appreciating its comfort and advantages. Two or three spasmodic attempts were subsequently made to introduce this device, and it is due solely to the sex whom it was intended most to benefit that it has not come into general use.

An examination of the reports of the Massachusetts Board of Health in the early seventies will reveal the whole history of this treadle.

EDITORIAL NOTES.

A New Scotch Medical Journal.—

According to our trans-Atlantic *confrères*, a new journal is likely to be started in Scotland the coming year. A committee on the subject has been formed by the members of the profession, and has been for some time actively engaged in making inquiries as to the probable success of the proposed journal and discussing arrangements. What these arrangements and the scope of the enterprise are, has not altogether transpired, though it is intimated the new journal will devote special attention to therapeutics.

Worthy of Adoption.—

The Medical Society of Berne, Switzerland, has made the suggestion that an Act be formulated forbidding all press notices of suicides, inasmuch as it has been repeatedly observed that *felo-de-se* epidemics arise from suggestions afforded by the reports of the sensational general press.

What Next!—

It is now declared that the Roentgen rays have been successfully applied in the detection of adulteration of food products. By their aid chalk has been detected in flour, brick dust in cayenne, and sand and ground cocoanut shells in spices.

Grindelia Squarrosa.—

It is said that hypertrophy of the spleen, ringing noises in the ears, and soreness of the eyes and muscular tissues as derived from colds, are all very readily relieved by this remedy.

Items and News.

Lay Encroachment.—

The reason why there are so many starving doctors has been explained by a Parisian statistician, and with some degree of logic, too. He says physicians themselves are responsible for the state of affairs; they have taught their own skill to their patients, and to lady patronesses of hospitals and charities and societies. People no longer call in a doctor to bandage a wound, to vaccinate children, etc. The lay press is full of gratuitous medical advice on bronchitis, cramps, pimples, and headaches. Physicians *give* away thousands of consultations every year. These are some of the reasons why doctors are poor in Paris, and some of the reasons why they are poor in Chicago and elsewhere.—*Medical Century*.

Hydrophobia in New York.—

How many cases of hydrophobia occur in New York in a year?

Possibly one, probably none.

How many dogs have epilepsy and foam at the mouth, and are chased by the policemen and crowds, until occasionally they turn on their pursuers, instead of bearing the chase as a well brought-up cur ought to bear it?

About a hundred every summer.

Some of them have had their tails adorned with tin pans or things of that kind before they developed hydrophobia, but some have simply been chased down by the street boy, who traverses his route to or from his play or his duties, with the general idea in his mind to hit everything in sight.—*The Post-Graduate*.

Just Sol—

Apergy, which is the name of the "force" claimed for the Keeley motor, is thus defined: "It is obtained by simply blending negative and positive electricity with electricity of the third element or state, and, by charging a body sufficiently with this fluid, gravitation is partly reversed, and the earth repels the body with the same or greater power than that with which it formerly attracted it, so that it may be caused to move away into space." This is the way in which the force is obtained. Mr. Keeley has not yet obtained it, but this force is all that is now lacking to make the machine an unqualified success.—*The Critic*.

Care of Urinals.—

If a urinal is coated with heavy oil, the urine leaves no trace or odor as it runs off.

The public urinals of Vienna are treated in this way, with satisfactory results, saving the city \$30 a year for the water supply of each; and many other European cities have already adopted the same measure. The receptacle should be scrubbed with a broom and plenty of water once a week or fortnight, and when quite dry painted with thick mineral oil, obtained by distilling petroleum. Another system has a permanent syphon supply of oil.—*Journal of the American Medical Association*.

"Physician, Heal Thyself."—

A prominent physician of India recently died from the bite inflicted by one of the deadliest of snakes; he had been making experiments with a view to the discovery of an antidote, and supposed he had rendered himself proof against the venom of snakes. One of the worst victims of rheumatism we ever knew was a man who had discovered a positive cure for that disease. The secretary of the Amick Consumption Cure Company died of tuberculosis.—*Massachusetts Medical Journal*.

An Early Operation.—

Abdominal section was recently performed for internal hæmorrhage (rupture of the umbilical artery) on a child but one day old, and that too without an anæsthetic, yet the child pursued the even course of life as well as if nothing unusual had occurred.—*American Journal of Surgery and Gynecology*.

Quacks in the Evergreen Isle.—

Fortunately there are, in Ireland, practically no quacks. The good St. Patrick banished them along with the toads and other venomous animals, and since then, though many of the tribe have sought to effect a lodgment, they have always died of inanition.—*Medical Press and Circular*.

Precocious Menstruation.—

Doctor Irion, of Fort Worth, Texas, reports a case, seemingly well authenticated, of a female infant menstruating when one week old, the menses recurring regularly thereafter; in one instance where the period was missed, the child suffered apparently in the same way as an adult female.

The Journal of Nervous and Mental Disease.—

The following editorial staff is announced for 1897: Charles L. Dana, F. X. Dercum, Philip Coombs Knapp, Chas. K. Mills, James J. Putnam, M. Allen Starr, Philip Meirowitz, and William G. Spiller. Doctor Chas. Henry Brown will continue as managing editor.

Book Reviews.

THE PHYSICIAN'S PERFECT CALL LIST AND RECORD. By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 16mo; pp. 200. Price, \$1.50. George S. Davis, Detroit.

The fact this work has reached its eleventh edition, with a constantly increasing sale, is evidence of both its popularity and great usefulness among medical men. It is of size and shape that renders it convenient for the pocket, and it will not break down at the top or corners, as most books of this kind are especially prone to do.

It is universal in application—that is, it is equally available for any year, or any week or month in the year. It is free from advertisements of all kinds, the insides of covers and colored fly-leaves being taken up with such information as the medical man is apt to desire to consult hurriedly—thus the Obstetric Table (in two colors), Key to Metric Prescription Writing, Differential Diagnosis of Eruptive Fevers, Emergencies, and Poisons and Antidotes, are available upon the instant.

The Posological Information, and Tables of Doses, are entirely new, having been rewritten and brought up to October 1st, 1896.

As a whole, the work is the simplest, most complete, and most convenient ever issued, a marked improvement upon call lists generally, and the price (\$1.50) is so reasonable that no medical man can afford to be without so important an aid to the keeping of professional and other accounts and records.

SYSTEM OF DISEASES OF THE EYE. Edited by William F. Norris, A.M., M.D., and Charles A. Oliver, A.M., M.D. In two volumes. Volume I. Cloth; 8vo; pp. 670. Price, \$6.00. J. B. Lippincott Co., Philadelphia.

This, the first "System of Diseases of the Eye" ever published in English, embraces the most advanced theoretical and practical views on the subject that can be systematically grouped in a single publication. Thus by the aid of able collaborators a work has been produced which will take a place in the Anglo-Saxon language similar to that occupied by the "Handbuch" of Graefe and Saemisch in German, by the "Traité Complet" of De Wecker and Landolt in French, and which will be of service not only to ophthalmic and special students but also to the medical profession at large. This volume deals particularly with the embryology, anatomy, and physiology of the eye, as viewed by no less distinguished individuals than John A. Rider, Thomas Dwight, Frank Baker, G. A. Piersol, Alexander Hill, William Lang, E. T. Collins, Edward Jackson, J. McK. Cattell, Eugen Brodhun, William Thompson, Carl Mays, and Carl Weiland. Further, this most desirable work is illustrated with no less than twenty-five full-page plates and 362 text illustrations. Its complete character and concise treatment of subjects render it essential to every practitioner.

INDEX FOR 1896 OF CHEMICALS AND DRUGS. Cloth; 8vo; pp. 268. Merck & Co., New York.

Messrs, Merck & Co. have spent years in research and investigation of rare chemicals and in compilation of literature pertaining to the same, which has been embodied in this volume, no expense being spared in the effort to secure absolute accuracy; as a result the Index for 1896 is a work essential to guidance and reference for all physicians, pharmacists, druggists and chemists who desire to keep pace with the evolution and progress of their professions. Full statements regarding all new drugs, including dosage, etc., appear; and, not content with this, the publishers earnestly request any suggestions that may tend to improve future editions.

Thus the Index affords a ready means of quickly and reliably answering questions of fact that arise regarding new or rare chemicals. Much of the information is unique and not to be obtained anywhere else—at least not without a research through many volumes, with expenditure of an enormous amount of time and study. A companion work is *Merck's Report*, which appears monthly, and the subscription price of which is but \$2.00 a year.

CHARAKA-SAMHITA. By Avinash Chandra Kaviratna Kavaraja. Part XV. Paper; 12mo; pp. 445 to 476. Published by the Translator, 200 Cornwallis Street, Calcutta.

The contents of this fasciculus are very interesting. In the division on Vimanana, which is equivalent to the science of analysis, the characteristics of taste and rest are analyzed, including the different articles of food, and their effects on the human system, good, bad, and indifferent. Also the suitability of the different articles of food and drink, and their importance—this completes the "First Lesson."

Lesson Second treats of the three divisions of the stomach, and the consequences of eating properly or improperly.

Lesson Third treats of how the destruction of cities, towns and villages is brought about, and is a disquisition upon such natural agents as soil, air, and water. Incidentally it treats of the causes of destructive plagues which often occurred in ancient India.

A TEXT-BOOK FOR TRAINING SCHOOLS FOR NURSES. By P. M. Wise, M.D. Two volumes. Volume I. Cloth; 16mo; pp. 247. G. P. Putnam's Sons. The Knickerbocker Press, New York.

It is less than a dozen years since the first qualified nurses, trained in organized schools, were able to offer themselves as proficient in the care of mental cases in hospitals and private houses. The aim of this volume is to fill the entire need of a text-book, without auxiliary works, in training schools—imparting concisely what the nurse should know of anatomy, physiology, and hygiene, and the special relations of these subjects to the treatment of the insane. It is calculated, moreover, to furnish a

graded course of recitation to fill the usual school term of two years.

The work commends itself as affording in a progressive and logical manner the basis of a course of study to which collateral instruction can be added by lectures, clinical demonstrations, and practical drill in all the manipulations of the nursery.

A TEXT-BOOK OF MATERIA MEDICA, THERAPEUTICS, AND PHARMACOLOGY. By George F. Butler, Ph. G., M.D. Cloth; 8vo; pp. 858. Price, \$4.00. W. B. Saunders, Philadelphia.

This work, which is intended to supply the student with a clear, concise, and practical text-book, is especially adapted for reference and the requirements of the class-room. The arrangement—embodying the synthetic classification of drugs based upon therapeutic affinities—is at once philosophical and rational, and best calculated for reference and study.

Special attention has been given to the pharmaceutical section, which is exceptionally lucid and complete. The drugs omitted, while quite numerous, are only of a class seldom employed. A notable feature is, the untoward action and toxic effects of drugs are treated under separate heads, the former recording the effects of medicinal doses in developing certain symptoms dependent more or less upon individual susceptibility.

LOST COUNTESS FALKA. By Richard Henry Savage. Paper; 16mo; pp. 318. Price, 50 cents. Rand, McNally & Co., Chicago and New York.

This is a tale of the Orient by the well known author of "Checked Through," "My Official Wife," "Masked Venus," etc., and is highly tragic, holding the interest of the reader to the very last. Indeed, it is one of the most entrancing novels of the year.

The publishers are to be congratulated upon the excellent style in which they get up their publications of the Rialto Series, a copy of which is issued each month; it is particularly convenient to novel-readers, and the entire Series can be subscribed for for the modest sum of \$8.00. Don't fail to read Countess Falka.

A VEST-POCKET DICTIONARY. By Albert H. Buck, M.D. Morocco; 48mo; pp. 527. William Wood & Co., New York.

At last we have a true vest-pocket medical dictionary. Volumes of this class in the past have been very unsatisfactory, being inefficiently compiled without regard to the demands of the student. This work, however, contains most of the new words which have been introduced into medical terminology during the past few years, and likewise the changes in signification which have been taking place in some of the older terms. Moreover, all the standard terms are found. Inasmuch as the work only measures two and a half by three and a

half inches and contains over 5000 words, it fills an unmistakable want, one perhaps that has not hitherto been fairly appreciated.

OVER THE HOOKAH. By G. Frank Lydston, M.D. Cloth; 8vo; pp. 618. Price, \$4.00. The Fred. Klein Publishing Co., Chicago.

The sub-title is "Tales of a Talkative Doctor," which quite fits the character of the author. Doctor Lydston, in Chicago circles at least, has quite a reputation as a *raconteur*. The volume is made up of a series of tales pleasantly told, the most notable chapters being on "Several Kinds of Doctors;" "Larry's Contributions to 'Fishology,'" "How a Versatile Young Doctor Reported a Society Event;" "A Martyr to His Passions;" "Poker Jim;" and "The Passing of Major Merriwether."

THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By A. D. Rockwell, A.M., M.D. Cloth; 8vo; pp. 612. Price, \$4.50. William Wood & Co., New York.

This is in a sense a successor to the original book of Doctors Beard and Rockwell, the eighth edition of which appeared in 1892. The volume has now, however, been entirely rewritten, rendered more concise, and brought thoroughly up to date, including the surgical application of skiagraphy. It fills a very general want, and will be essential to every practitioner, even though he possesses a previous edition.

SHE FELL IN LOVE WITH HER HUSBAND. By E. Werner. Paper; 12mo; pp. 336. Price, 25 cents. Rand, McNally & Co., Chicago.

A very interesting volume, which deals with the alliance of a lady of the nobility with a commoner, as brought about by financial dealings between the parents. The lady subsequently found her husband one of "Nature's noblemen." Incidentally there is a strike at a mine, which adds to the thrilling interest of the plot.

SIMPLICITY. By A. T. G. Price. Cloth; 16mo; pp. 170. Rand, McNally & Co., Chicago and New York.

Simplicity is the name of a beautiful and lovable young woman—who, however, was very far from simple; a young woman who gave her life freely and willingly for those she loved. The character all through is one of self-abnegation, the history of a life lived for the benefit of others rather than self.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By Arthur M. Corwin, A.M., M.D. Cloth; 16mo; pp. 199. Price, \$1.25. W. B. Saunders, Philadelphia.

This is a second edition, revised, of Doctor Corwin's Outline of Physical Diagnosis of the Thorax and is a very handy synopsis of the subjects treated of.

A CHANCE CHILD; COMRADES; HENDREX AND MARGO; AND PERSEPHONE. By Marah Ellis Ryan. Cloth; 16mo; pp. 260. Rand, McNally & Co., Chicago and New York.

This volume embraces, as the title shows, four tales, any one of which would render it a delightful book. To properly review it we would have to outline the tales, but then the charm of the book would be lost. It is just the volume for an idle moment.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR 1896. Cloth; 8vo; pp. 837. Published by the Society, at Grand Rapids.

This is the twentieth volume of these transactions, and it fully upholds the reputation won by previous issues. The number of papers, and their scope, is such as not to permit of a critical review. There is much, however, that cannot fail to be of value to the reader.

MY BROTHER. By Vincent Brown. Cloth; 16mo; pp. 204. Rand, McNally & Co., Chicago and New York.

This is a plaintive and pathetic tale dealing with the unfortunate side of life, and the attempt of a noble man to make vicarious atonement for a crime committed by his brother.

THE NON-HEREDITY OF INEBRIETY. By Leslie E. Keeley, M.D. Paper; pp. 359. Scott, Foresman & Co., Chicago.

A book of platitudes, neither interesting or scientific. The author endeavors to talk knowingly of things he knows naught of.

YOUTH'S COMPANION CALENDAR. Perry Mason & Co., Boston.

It is said that the expense of making the Art Calendar for 1897 of this well known family paper was so great that had it been published in the usual quantity it could not be sold for less than one dollar. Four beautiful female figures are reproduced on four folding pages. Each figure is lithographed in twelve colors, being a true reproduction of the original water-color painting, which was selected because of its excellence of design and charm of color and tone, and the size of each of the four folding pages is $10\frac{1}{2}$ by 6 inches.

This is by far the best piece of color work the *Companion* has ever offered. Both as a calendar and as a gem of the lithographer's art, it is so attractive that it becomes a valuable addition to the mantel or centre-table of any room. It is given free to all new subscribers sending \$1.75 to the *Companion* for the year 1897, who receive also the paper free from the time the subscription is received till January 1st, 1897.

Celebrating in 1897 its seventy-first birthday, the *Companion* offers its readers many exceptionally brilliant features. Fully two hundred of the most famous men and women of both continents have contributed to the next year's volume of the paper. Send for free Illustrated Prospectus.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

This well known periodical will have for its leading serial during the coming year "Hugh Wynne, Free Quaker," by Doctor S. Weir Mitchell, which presents a story of social life in Philadelphia amid the stormy scenes of the Revolutionary War. Another serial of great promise, written especially for *The Century*, is "A Rose of Yesterday," by F. Marion Crawford. General Horace Porter will present a series of papers on "Campaigning with Grant," which will rank with the most notable successes in the magazine's history, abounding with vivid pictures of campaign scenes and spiced with anecdote and humor. "Old English Masters," engraved by T. Cole, will be illustrated by Boutet de Monvel, Castaigne, Howard Pyle, and Charles S. Reinhart. Short stories of more or less local character are promised by Chester Bailey Fernald, Viola Roseboro, Harry Stillwell Edwards, George A. Hibbard, and others.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York and London.

The November issue is a fit representative of this typical magazine. Frithjof Nansen writes of his "First Night in the Snow;" R. E. Macnaughten of "A Yachtman's Paradise;" Sir Ralph Payne-Gallwey, Bart., of "A Visit to a Modern Shooting School;" C. J. N. Fleming of "Rugby Foot-ball;" Arthur P. Silver of "Sport in Eastern Canada;" the Countess Malmesbury of "A Country Ride;" G. H. Jalland of "Hunting;" Captain Fuller Whistler of "From a Camel;" H. Heron of "Sport in the Channel Islands." The issue is indebted to Lancelot Speed, C. Whymper, E. Caldwell, and Archibald Thorburn, for the superb illustrations. There are the usual Notes by "Rapier."

THE AMERICAN ANTIQUARIAN AND ORIENTAL JOURNAL. Price, \$4.00 per annum. Edited by Reverend Stephen D. Peet, Good Hope, Illinois.

This bi-monthly (September-October) journal contains: "The Battle and the Ruins of Cintla," by D. G. Brinton; "A Story of the American Indians of Nicaragua," by J. Crawford; "What Patalaches Are," by James Deans; "Aboriginal Remains of Balsam Lake," by G. F. Laidlow; "Sunrise at Stonehenge;" "The Alphabet Mycenæan, not Phœnician;" "Certain Shamanistic Ceremonies Among the Ojibwas," by H. I. Smith; "A Study of the High Cliff Dwellings and Cave Towns," by S. D. Peet; "The Inspiration of American History;" "A Choctaw Cemetery in Marengo County, Alabama," by H. S. Halbert.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

The November issue is especially interesting. Mr. Thomas Wilson writes of the "Piney Branch (D. C.) Quarry Workshop and Its Implements;" E. D. Cope of "The Geographical Distribution of Batrachia and Reptilia in North America;" L. P. Gratacap of "Fossils and Fossilization;" Erwin F. Smith of "The Bacterial Diseases of Plants." There are the usual Editor's Table, Recent Literature, and General Notes, the latter embracing Mineralogy and Crystallography. Geology and Paleontology, Zoölogy, Psychology, and Anthropology.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; \$3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the December issue of *Lippincott's* is "The Chase of an Heiress," by Christian Reid, the scene being laid in Santo Domingo, a region hitherto unfamiliar to fiction. "Shutting Out the Sea" is by G. E. Walsh; "Two Old Boys," by Pauline S. Colyar; "The Land of Taffy," by D. C. Macdonald; "An Old Virginia Fox Hunt," by D. B. Fitzgerald; "The Whipping of Uncle Henry," by W. N. Harben; "Flirtation as a Fine Art," by Jean Wright; "Our First Silver Mine," by George J. Varney; "How Timmy Saved the Piece," by L. B. Morse. There is the usual poetry.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

This well known children's periodical is without a rival on either side of the Atlantic. Among the notable promises made by the publishers for the coming year is a tale entitled "Master Skylark," by John Bennett, which deals with the time of Shakespeare, and is full of action, fun, and romance. Another strong story, with a unique plot, will be "The Last Three Soldiers," by William H. Shelton. Patriotic sketches, helpful articles, spirited pictures, bright poems, prize puzzles, etc., will render this periodical, as heretofore, ever attractive to the family circle.

THE REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. The Review of Reviews Co., New York.

The November issue presents the following interesting table of contents: "Summing up the Vital Issues of 1896," by Lyman Abbott; "Methods and Tactics of the Campaign," by W. B. Shaw; "Will Free Coinage Benefit Wage Earners?" by Charles B. Spahr and Richmond Mayo-Smith; "George du Maurier," by Ernest Knauff; "What to Do with Turkey," by W. T. Stead. There are the usual "Progress of the World," "Current Politics in Caricature," etc.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston.

This well known classic periodical has for nearly forty years stood pre-eminently for American literature, and a very large part of the permanent contributions to American letters during that time has first appeared in its pages. It keeps true to its long and high literary tradition, but in addition to its purely literary features it makes announcements for the coming season of several large magazine enterprises of more than usual interest and timeliness.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

Contents for November: "The Arlington Iron-Minnesota No. 2," by N. H. Winchell; "The Age of the California Coast Ranges," by H. W. Fairbanks; "The Elective System in Engineering Colleges," by M. E. Wadsworth; "Orotaxis: A Method of Geologic Correlation," by C. R. Keyes; "Human Relics in the Drift of Ohio," by E. W. Clappole. There are the usual departments.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

In the November number Colonel George T. Denison writes of "Sir John Schultz and the 'Canada First' Party;" Principal Grant answers Goldwin Smith in "Canada and the Empire;" "Kate Carnegie," by Ian Maclaren, is continued; "The North-West Mounted Policeman" is by H. C. Thomson; "Reminiscences of Fort Macleod in 1885" is by Mrs. Bertha W. Antrobus; "Forestry," by Phillips Thompson; "Through the Sub-Arctics of Canada," by J. W. Tyrrell. There are the usual departments.

MEDICAL NEWS VISITING LIST. Seal-grained leather; 16mo; pp. 256. Price, \$1.25. Lea Brothers & Co., Philadelphia and New York.

This well known Visiting List has been brought up to date in every respect to answer the purposes of 1897. The text portion contains useful data for physician and surgeon, and the classified blanks are arranged to hold records of all kinds of professional work. When desired, a ready-reference thumb-letter index is furnished at an additional cost of twenty-five cents.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; \$2.50 per year. The Metaphysical Publishing Company, New York.

The November number opens with an article on "Unity of Man and Nature," by G. S. Wake; "The Transmission of Qualities" is by W. T. James; "Karma and Salvation by Works" (vii), by Charles Johnston; "Thought and its Embodiment," by C. G. Oyston; "Metaphysics in Modern Literature," by Eliza C. Hall. There are the usual departments.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

In the November issue Mr. O'Brien discusses "Catholic Education in the United States;" John Dennis writes of "Prospects for English Poetry;" L. H. Weeks of "A Historical Catholic Cemetery;" "A Bicycle Trip along the Irish Rhine" is by W. P. O'Callaghan; James Connolly writes of "The Old California Missions." There are the usual poetry, fiction, and departments.

THE PHYSICIAN'S VISITING LIST FOR 1897. Price, \$1.00. P. Blakiston, Son & Co., Philadelphia.

This is the forty-sixth year of this publication. The copy before us is paged for twenty-five patients per day or week. Larger editions are published, including a monthly edition if such is preferred. This has long been the oldest and one of the most popular of physician's visiting lists.

MEDICAL RECORD VISITING LIST. Morocco; narrow 16mo; pp. 200. Price, \$1.25. Wm. Wood & Company, New York.

An exceedingly neat little book, printed on good paper, handsomely bound, and conveniently arranged.

Therapeutic Brevities.

Antipyretics.—The synthetic compounds known as the coal-tar derivatives have had very extensive use, and been generally received as a great boon in the treatment of febrile affections; so universal has been their employment that some of the older remedies of superior merit have received the go-by. However, the pendulum is swinging back. The coal-tar derivatives have been discovered to possess great powers as depressants of the nervous system, and when given the lowering of vital energy must be watched with great care. There is no doubt that the patient's ability to withstand disease influences has been dangerously lowered or lessened in scores and hundreds of instances. These observations are the ones that are causing the pendulum to swing back to the old, time-tried remedies, which were so nearly abandoned. Spirit of nitrous ether, liquor ammonia acetate and others are in the ring, as useful as ever, and never a bit disfigured through a rivalry with the derivatives.

Attention is directed to another old remedy, the value of which cannot be gainsaid, and that is *water* used for its antipyretic effects. The use of the cold plunge-bath for a reduction of temperature in typhoid fever, after the method of Brand, of Stettin, is familiar to all practitioners. The trouble in its general use comes from the fact that the circumstances of the patient are usually such that cold plunge-baths cannot be administered. Portable tubs and skilled nurses are not to be had, hence there must be a resort to other methods.

It has been found that in cases of thermal heat or sun-stroke, where the temperature is excessive, rising to 108° and 114° , a bath in ice-cold water with an ice-cap to the head is efficient in reducing the temperature, but the desired reduction of heat will come about much more rapidly by giving the patient an enema of a pint to a quart or more of ice-water, *i.e.* water at a temperature of 32° , which may be repeated in twenty minutes or half an hour if necessary. It is well known that the rectum is very abundantly supplied with sensitive nerves, which are immediately influenced by a topical action of the cold water.

This plan of treatment of heat cases was so eminently satisfactory during the last summer in the Cincinnati Hospital that the use of ice-water as an antipyretic in other high-temperature cases has been adopted, with exceedingly satisfactory results. Where the purpose is to reduce the temperature, it is safe and produces no depression or other

unpleasant effects. It can be administered without moving the patient into a tub and with the least possible discomfort, and be repeated as often as indicated in the judgment of the attending physician. Of ice-water administered per rectum in this way, ordinarily for an adult a pint is sufficient for a single enema, and will reduce the temperature about one degree. Subsequent injections will bring the mercury down still lower.

In the summer complaint of children, small ice-water enemas have proven exceedingly beneficial.—*Cincinnati Lancet-Clinic*.

Senile "Pneumonia."—It is a common custom among physicians to call nearly every case of acute pulmonary disorder, pneumonia, particularly if the attack is accompanied by rapid and difficult breathing and pain in the chest; yet these are cardinal symptoms of phthisical exacerbations, of pleurisy with effusion, and of pulmonary oedema. Doctor L. D. White voices the well established truth when he states that the acute lung disorders in the aged generally termed pneumonia are in reality nearly always instances of pulmonary congestion from weakened circulation, which may be dependent on feeble heart action or valvular trouble, on obstruction to the systemic circulation from renal or hepatic disease, or on general atheromatous conditions; the most prominent symptom in these cases is dyspnoea. Venous obstruction is shown by livid lips and pale purple cheeks; the skin is doughy and puffy; the temperature may range high or be even subnormal; normal pulse-respiration ratio is impaired; the eye loses expression and may show *arcus senilis*. It is important in such cases to see that the bladder is emptied, and to examine the urine for renal derangement. Of all drugs, strychnine is the most efficient here. If the kidneys do not functionate, infusion of digitalis or the hot-air pack should be employed. Caffeine can be relied upon in cardiac complications. Small doses of whiskey or brandy often repeated are of more value than larger amounts at infrequent intervals. The clean light pneumonia jacket of cotton wadding is far preferable to the old-time poultices. The room ought to be well ventilated and be kept at a temperature not above 60° F. Nourishment should be liquid. The bowels may be moved daily by an enema of oil and suds.—*Denver Medical Times*.

Hot-air Baths in Albuminuria.—The hot-air bath fills two principal indications: it relieves the kidney by the abundant sweating pro-

duced, and it regulates the organic interchanges.

The immediate physiological effects of this treatment are shown by a sensation of heat, which is not at all disagreeable, and an abundant sweating accompanied by acceleration of pulse and elevation of temperature. Respiration is not at all affected. No untoward symptom is induced except, during the first baths, some palpitation and headache, which last about an hour; sweating is the only symptom that persists for a length of time.

The therapeutic effects are manifested by changes in the urine, the quantity of which diminishes on the day after the bath, and a rather intense polyuria which supervenes on the following day; the density of urine is in inverse proportion to its quantity. The urea scarcely undergoes any modification. The rate of albumen greatly diminishes on the day after the bath, but is increased on the following days, although it does not return to its former quantity. Gradually, however, this diminution becomes persistent, and finally there is complete disappearance of the albuminuria.

Hot-air baths are indicated in cases of sub-acute and chronic nephritis in epithelial forms, but are contra-indicated in the vasculo-connective forms and when arterio-sclerosis, a skin disease or a nervous condition exists.—CARRIEU, in *Gazette Hebdomadaire de Médecine et de Chirurgie*.

Will Alcohol Cure Cancer?—I was consulted by a negro man regarding a tumor on the leg, which I thought was cancerous; extirpation by knife was advised. Subsequently, after the tumor had grown much larger and had become offensive, the advice was repeated, but was for the second time refused. Some time after, the patient showed me that the tumor was gone, leaving a large depression which appeared to be granulating and had every indication of doing well. The treatment was a liniment made by adding six eggs to a pint of brandy, applying three or four times a day. The result was that two days before I saw him the whole lump had dropped out without a suspicion of hæmorrhage, although bleeding had been rather profuse before. The application did not cause any pain, and the offensive odor was entirely destroyed.

Now this may not have been a cancer. There was no enlargement of the inguinal glands, and I could not detect any cachexia, he being a negro. I did not examine microscopically, but all other symptoms pointed strongly to malignancy. Even granting it

was a benign tumor, was not the result rather marvellous? If I had a case of cancer now on hand, I would try pure undiluted alcohol on it. Is it not possible that alcohol may destroy the cancer cells, which are of low vitality?—DOCTOR BOWLING, in *Medical Brief*.

Oxygenated Chloroform.—A recent operation at the Hahnemann Hospital was performed under the influence of oxygenated chloroform with entire success, where, owing to the nephritic and cardiac condition, both chloroform and ether were contra-indicated. The patient was a female, aged forty-five years, very anæmic and emaciated, with a marked mitral murmur. The microscope showed granular casts, blood, pus, pelvic epithelium, crystals of oxalate of lime, and triple phosphates. It was evident that death could not be long delayed unless an operation for the removal of the right kidney was speedily performed; that it could not be performed without an anæsthetic; and that in her condition the administration of ether or chloroform would be followed by fatal results. In this emergency, oxygenated chloroform was administered, and the operation performed in two hours, without the slightest unpleasant result, and followed by only slight evidence of shock. Before the operation the pulse was 114, respiration 32. During operation the pulse was less rapid and fuller in volume. Time to anæsthetize, two minutes. The recovery was rapid and uneventful. Without the oxygenated chloroform the operation could not have been performed, and speedy death would have been certain.—*Medical Times*.

Salix Nigra.—In acute gonorrhœa with much erotic trouble, and in chordee with great irritation, give from thirty to sixty drops of *Salix nigra* on retiring, repeating again at midnight or toward morning if needed. Nothing gives more satisfaction than this remedy, as it robs the night of its terrors and leaves no unpleasant consequences in its train. In excessive venereal desire, amounting to satyriasis, this should be the first remedy employed, inasmuch as it controls venereal appetite in a very satisfactory manner. The *Salix nigra* can be given in cases where the bromides are considered appropriate, and likewise where they would be inappropriate, since there is no reflex effect on the brain or nervous system.—*Chicago Medical Times*.

Strychnine Poisoning.—This may be antidoted with full doses of chloral.—Patients

thus poisoned can and do endure full doses of chloral, with excellent results. As strychnine is a powerful excitant of the cord, and as chloral is a strong depressant of the cord, the latter antidotes the former with a physiological degree of certainty. Conversely, however, strychnine is not antidotal to any certain degree to overdoses of the chloral; the latter is a powerful, dangerous depressant of the great centre of respiration and circulation, the medulla oblongata. Chloral is a dangerous remedy in large doses, even when given to antidote strychnine poisoning, yet one must be bold and alert in such cases to succeed.—JOSEPH ADOLPHUS.

Nux Vomica in Parturition.—In slow dry labors the uterus may be kept at work by a careful use of nux vomica; in a woman of ordinary health I sometimes think a child can be expelled by its help that could not by any possibility be taken away with forceps. I prescribe a teaspoonful every fifteen to thirty minutes, as required, of a mixture of fluid extract nux vomica, ten to fifteen drops in four ounces of water.—*California Medical Journal*.

We are positive it will do the work; we have no better nerve stimulant, and if the stomach is active we would much rather use it than hypodermatic injections of strychnine. There are few if any more certain remedies than nux vomica.—*Medical Gleaner*.

Gastro-intestinal Catarrh.—When attended with anæmia, give sodium phosphate in the dose of from fifteen to sixty grains before eating; after meals, Bland's pill; also regulate diet and general mode of living—meats, milk and eggs are especially to be insisted on. When neurasthenic symptoms are prominent the amount of milk may be augmented, and extra rest should also be taken in the middle of the day, besides tepid baths with subsequent friction, gentle exercise, etc. Where the neurasthenia is of milder form, elixir of iron, quinine and strychnine may be substituted for Bland's pill.—ESHNER.

Ænanthe Crocata.—In 1887 I met a gentleman who, as the result of a wound from a shell, had suffered from epilepsy for twenty-five years. He was a total wreck; had four or five "spells" a day; could not write his name; at times would take to his heels and run four or five miles to the country before he could be overtaken and captured. I put him on *Ænanthe crocata*, five drops every four hours. In less than a year he was enjoying perfect health. He still takes the remedy,

though not continuously; when he feels nervous he will take a few doses.—COOPER, in *Homœopathic Recorder*.

Labor Induced by Sodium Salicylate.—A patient entered hospital to be mechanically delivered of a fœtus (five months' gestation) that had been dead for ninety days. Nothing was done but to administer daily ninety grains of sodium salicylate for five days, when labor came on and a natural delivery ensued. As a rule this medication is ineffective to induce labor unless uterine contractions have already commenced or some pathological cause like a dead fœtus has produced a readiness in the uterus to respond.—*Gazette Médicale de Liege*.

Intoxication by Cocaine.—In two instances extremely grave phenomena followed injection into the bladder of a solution of thirty grains of cocaine to the ounce of water; they were of a convulsive character, but subsided on the inhalation of chloroform. Pfister cites a case that resulted fatally: A twenty-percent. solution of cocaine was injected into the urethra to diminish the pain of catheterization; the fluid had hardly left the syringe before the patient fell back dead.—*Annales des Maladies des Organes Genito-Urinaires*.

Hæmorrhoids.—Artult recommends concentrated tincture of horse-chestnut as affording unfailing relief for hæmorrhoids, when given in doses of ten drops daily. In most cases a marked improvement was observed after two such doses, and after a few days the painful symptoms had entirely disappeared. The author does not offer any explanation as to which of the constituents is to be credited with the therapeutic effect.—*American Druggist*.

Neuralgia Liniment.—

Pure mustard oil, 1 part.
Camphor, 2 parts.
Peppermint oil, 5 parts.
Ether, 10 parts.
Alcohol, 30 parts.

This has been found of great service in most obstinate cases of neuralgia, and is applied to the affected part by means of a camel-hair pencil.—OLSEN.

Chronic Laryngeal Cough.—A woman complained of a hard, distressing cough which had persisted, off and on, for eighteen years. Examination revealed only slight congestion

of the vocal cords. Afterwards it was learned that the cough originated in childhood after measles, and that it was worse in a hot room and relieved after going into the air. Pulsatilla was prescribed and perfect relief obtained; there has never been any return.—*Homœopathic Recorder*.

Syphilitic Sores, etc.—Chancres and other syphilitic sores may often be promptly cured by packing with a mixture of equal parts of iodine and pure oxide of zinc—the two drugs should be thoroughly incorporated by the aid of a mortar. This compound is a specific in all local syphilitic troubles, and I have had the best results from painting the parts over with the same mixed in pure castor oil.—I. J. M. Goss.

Mental Therapeutics.—The therapeutic influence of the mind on the body must be considered of greater practical value in the treatment of disease than has hitherto been accorded to it. Neglect of its real value may be ascribed to the fear which physicians have of injuring their reputation, because mental therapeutics have been heretofore the *modus operandi* of charlatans.—SCHOFIELD, in *The Lancet* (London).

Cerium Oxalate in Tabes Dorsalis.—I have employed cerium oxalate in the gastric crises of locomotor ataxia with decided success. The duration of the attack is lessened, the vomiting greatly reduced, and the pain and nausea relieved. Sleep returns, and alimentation is to a certain extent possible. I give in doses of one to three grains four times daily.—OSTANKOFF, in *La Médecine Moderne*.

Echinacea for Carbuncles and Boils.—For six months a gentleman was very much troubled with boils so severe that they fairly assumed the character of carbuncles, of which he would have several at a time. He was put upon *Echinacea angustifolia*, with the gratifying result that no more made their appearance, and existing suppurations were absorbed and dried up.—*Homœopathic News*.

Migraine.—

Butyl-chloral, 15 grains.
Tincture gelsemium, 30 minims.
Tincture cannabis indica, 15 minims.
Glycerin, 4 drachms.
Water, to make 3 ounces.

Dose, one ounce, repeated in half an hour if required.

—*The Practitioner* (London).

Ulcers of the Nasal Septum.—These are often a source of epistaxis, and are best treated by application in solid form of potassium permanganate. A probe wrapped in slightly dampened cotton is dipped in finely powdered permanganate and applied to the affected surface, the surplus being washed away. Varicosities of the septum often yield to this treatment.—*General Practitioner*.

Constipation.—The persistent constipation which so often accompanies pregnancy, and appears after confinement, may be usually relieved by teaspoonful doses every three hours of:

Fluid extract cascara sagrada, 4 drachms.
Ammoniated syrup of rhubarb, 4 drachms.
Syrup of orange peel, to make 2 ounces.

—WELLS.

Thuja in Hydrocele.—In a recent case the fluid was evacuated and iodine injected, and, though active inflammation resulted, the hydrocele was not cured. Later the sac was again evacuated, when was injected half an ounce of full-strength thuja. An active inflammatory state resulted, followed by complete and satisfactory cure.—*Medical Gleaner*.

Dental Obtundent.—

Mustard oil, 30 minims.
Cinnamon oil, 40 minims.
Ether, 1 drachm.

This should be used for sensitive dentine only, and never until rubber dam has been adjusted around the tooth.—*Items of Interest*.

Catarrhal Jaundice.—Two cases recovered in the course of a fortnight under the use of calomel, followed by sodium phosphate in drachm doses three times a day; also was given dilute muriatic acid in syrup, ten drops four times daily.—GRIFFITH.

Corns.—

Salicylic acid, 30 grains.
Extract cannabis indica, 10 grains.
Collodion, 4 drachms.

Paint on corn night and morning for several days.

Scabies.—Wash with soap and water, and then rub all over, twice a day, with balsam copaiba. No other application need be made. The itch mite cannot live in the balsam beyond two or three hours.—MONTI.

Medical Progress.

CONSANGUINEOUS MARRIAGES.—The results of these marriages have been differently regarded by various authors. Esquirol attributed to them a predisposition to insanity among the descendants. Ménière affirms that in the majority of cases deaf-mutes owe their infirmity to the ties of relationship between their parents. Lucas thinks these marriages are a cause of degeneration in the human race; that they produce mental dullness, brutality, insanity, impotence, etc. Liebreich states that consanguinity is frequently the cause of pigmentary retinitis among the descendants. Raynaud ranks consanguinity among the conditions which may produce albinism. Luys seemed to have proved the injurious influence of consanguineous marriages. On the other hand, others have boldly declared themselves in favor of these marriages, and state that they are not at all injurious. It is not astonishing, then, that in the face of such extreme opinions, Lévy, Bouchardat, Voisin, Darwin, Lacassagne, Ballet and others should view the question from both sides and affirm that these marriages are productive of both good and evil results, according to whether the contracting parties are exempt from or affected by constitutional diseases. With such a diversity of opinions, it is difficult for physicians to decide when they are consulted by patients in regard to the subject. M. Perrin recently made a study of the question, and gives his conclusions as follows:

First of all, among the numerous affections attributed to marriages of consanguinity, idiocy, insanity and epilepsy are due generally to heredity, but in a few cases consanguinity of the parents may certainly be the cause. As to convulsions in the young, the cases are so numerous that it is impossible to attribute this affection to the influence of consanguinity. It may have a share in the production of deaf-mutes, but is not an invincible factor. With regard to affections of the sight, the influence exercised by consanguinity has been ascertained, and in albinism it has been distinctly proved. Sterility cannot be attributed to consanguinity alone. Certain congenital deformities have been so frequently observed in children whose parents were perfectly healthy that, in these cases, we are forced to admit the theory of consanguinity alone. On the whole, we may conclude that if under certain circumstances consanguinity and heredity are two etiological factors which combine in the same family to bring about the same morbid results, it is

none the less true that in some cases consanguineous marriages among healthy persons may exercise an unfavorable influence on the children. Physicians should not dissuade their patients from marriage if there is no diathesis, no hereditary disease, and if they are in good health and have strong constitutions; on the other hand, it is not well to encourage them, because even in the best conditions the children of such marriages have presented irremediable defects. But if the physician discovers the least trace of physical or mental affection, he should exert all his influence to prevent such marriages, for they can only be productive of deplorable results.—*New York Medical Journal*.

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The following is an abstract of Perrin's recent work:

The Persians, the Medes, the Hindoos, the Ethiopians, married their mothers, their daughters, and their grand-daughters; and neither priest nor magistrate, nor anybody else, ever found fault with such marriages. Far from it. The Persians held in especially high respect the children born from the union of a mother with her son—a union which the Magi chiefly put into practice, and they were the wise men of the East, the powerful representatives of science and of religion.

Among the Greeks, brothers and sisters by the father's side, but from different mothers, were allowed to marry. In Athens, the brother, who alone possessed the right of heritage, had the choice to either marry or portion his sister.

When the Ptolemies, who were of Greek descent, became sovereigns of Egypt, they often married their sisters through dynastic interest. Born of that family, Cleopatra, who herself married in succession her two brothers, Ptolemy XII. and Ptolemy XIII., was remarkably beautiful, lovely, and bewitching.

In Rome, marriages between relatives were strictly prohibited—for example, the marriage of an uncle with his niece was regarded and punished as an incestuous act. Marriages between cousins were at first forbidden, then allowed, and again prohibited under penalty of death.

Up to the time of Mahomet, the Arabs had the liberty to marry their own mothers. But the prophet interdicted such unions, besides others, in the Koran, which said: "Do not marry the women who were the wives of your fathers; it is criminal. You are also not allowed to marry your daughters, your sisters, your aunts, your nieces, your foster-sisters, your grandmothers, and the daughters of the

women you have in charge, unless you have not had any intercourse with their mothers."

The aborigines of Peru, Brazil and California appear to have paid little attention to marriage between relatives. On the contrary, among the primitive inhabitants of Mexico, Hayti, and chiefly of Australia, unions between close relatives were interdicted and severely punished. Chinese legislation forbids marriages between persons having the least relationship by blood, however distant. So it is in Turkey, curious as it may seem—for a people who practice polygamy are not expected to show so much moral sensitiveness.

The Catholic Church at various times has modified her decisions regarding marriages between relatives, but, as a rule, has been particularly strict in this respect: the Council of Toledo in A.D. 381 forbade them all, however slight the relationship; the Councils of Clermont, Orleans, Tours, Auxerre, permitted them, but not within the relationship of cousins by first degree. Pope Gregory the Great interdicted marriage between relatives of the second generation, meaning first cousins, and permitted it at the third and fourth generation.—*Journal de Médecine et de Chirurgie Pratiques*.

FEMALE CYCLISTS.—Possibly no craze has taken so complete a hold on the people as cycling. It seems to be the ambition of every person, male and female, from the time they walk until they have reached the age of discretion, say about seventy-five or eighty, to own a bicycle. Much of this is undoubtedly due, first, to the introduction of what is known as the safety bicycle; second, to the booming methods of the bicycle-manufacturers; and third, the feature with which we have to deal, the general introduction of bicycle-riding among women. While we admit everything that has been said in regard to the advantages to women of getting out in the open air and having healthful exercise, we object to this particular form of it. So far as we know, there never has been any law which prevented women in Christianized countries from getting out in the open air as much as they pleased, so long as it was compatible with the ordinary duties for which they were intended, raising a family and making a home comfortable. As far as exercise is concerned, the average woman will readily admit that she gets about all the exercise she wants in looking after her home. In this connection, too much praise cannot be given to the German system of beer gardens

—not the music-hall beer garden of the Bowery, but those respectable institutions of the Fatherland which are distinct family resorts and in which an intoxicated man or woman is not seen or allowed, where the head of the family takes the wife and children in the evening out under the trees to listen to the bands, and the older folks may enjoy their glass of light beer, while the children play around under their parents' eye and control.

We now propose to consider directly and plainly, as far as experience has informed us, of the immoral and injurious effect of bicycle-riding upon women. To first consider the position in which a woman is placed on a bicycle: we have a saddle so constructed that it fits more or less accurately the perineum and adjacent parts. In the saddle as used by men—and there is practically very little difference if any between the saddles for the respective sexes—the general report is that all the pressure comes on the soft parts of the buttock between the tuberosities of the ischium, on the perineum and forward towards the scrotum, the latter being produced by the stooping position in which the person rides; and, as they explain it, they have got "to hinch backward" occasionally in order to relieve the pressure and irritation along the urethra. All of which brings us directly to the point that the strong pressure upon the like parts of the female goes a long way towards, as one of our exchanges expresses it, "filling a long-felt want." While this, of course, expresses the effect produced, it would be absurd to suppose that it was the primary reason for bicycling; nevertheless the consensus of opinion is increasing overwhelmingly day by day that bicycle-riding produces in the female a distinct orgasm. We know of a number of lady riders who have been compelled to give up the use of the bicycle on this account; and even if an orgasm is not produced, the continued erethism is decidedly more injurious and tends to the production of nervous diseases and the general breaking-down of the system. The only contention that can be made is that the orgasm or erethism is not produced. This we know to be absolutely untrue—so much so that we have on good authority within the last few days heard of a case which is responsible for this editorial. This is simply that in one place where cycling is taught, the saddle has been purposely raised to aggravate this condition, and that the attendants who steer innocent maidens around on their wheels find that at first erethism and then orgasm is produced; the lady complains of being tired and gets off her wheel. A condition of affairs

so scandalous and abominable deserves the attention of every man who trusts his female relatives to bicycle-riding, and if men are found who would purposely do this sort of thing—as there is no doubt that some have done it—a term in the penitentiary with an occasional application of the “cat” would be a mild punishment.

We would say, in conclusion, that in bicycle-riding we have a woman pedaling away in much the same manner as running a sewing machine, and we know what this has been accused of in the way of producing female complaints. But add to all this the working with contracted chest in a stooped position, with all the abdominal organs pressed downwards, subjected to continued erethism, as well as an occasional orgasm, and you have a condition of affairs which will take a better authority than the bicycle-manufacturer to prove to us that bicycle-riding is a healthful exercise for women. It is not necessary to point out to physicians the relaxed nervous and moral stamina produced in a girl by taking a ride out into the country. We hope physicians will look earnestly into this matter, and our columns will be open for them to report. We have a number of cases now which have been carefully looked into by the physicians of our staff, and we are absolutely satisfied, as far as we are concerned, that female bicycling must be sharply looked after, and care exercised in its indulgence.—*Dominion Medical Monthly*.

THE REGULATION OF MARRIAGE.—Doctor Daniel R. Brower, in a paper presented at the 1896 meeting of the American Medical Association, contends that the welfare of the community demands that marriage should be regulated, and that each and every person be prevented from marrying unless evidence be furnished that such person is in good health, not insane, a criminal, pauper, alcoholic or narcotic inebriate, not tuberculous, cancerous, epileptic, or suffering from active venereal disease.

Doctor Brower says it is horrible to contemplate what will be the condition of the race in the future, and what will become of our social and political institutions, if the wholesale production of abnormalities, through the violation of the laws of heredity, constantly taking place in unregulated marriages, does not cease.

It is but necessary to consult statistics bearing upon the existence of insanity, pauperism, criminality, and the degenerating effects of various vices of nutrition, to understand that unless the increase in these defects

can be arrested we are doomed to early disaster. In 1860 the proportion of insane to the population in Great Britain was 1 to 523. In New York to day the proportion is 1 to 315. The percentage of increase in the number of criminals is far in excess of the increase in population, the criminal population increasing 45 per cent. between the years 1880 and 1890, while the total population increased but 24½ per cent. during the same time. In fifty years the increase in the number of criminals has been 445 per cent. The consumption of distilled spirits, per capita, has not increased in fifty years, but during the same time the consumption of malt liquors has increased, per capita, 738 per cent. Heredity is the underlying factor in all, and it is time that ways and means be found to check the horrible consequences which will inevitably result if the present ratio of deterioration in our civilization increases.

It is time the subject received careful consideration, and we fully agree that “the laity need to be instructed on the subject; they should be taught that insanity, epilepsy, tuberculosis and drunkenness are all most certainly transmissible, and that out of them proceed pauperism and crime, and that he or she who possesses any one of these, or any other vice of nutrition, in marrying assumes a terrible responsibility for the suffering and misery entailed upon succeeding generations.”

These unfortunate marriages, regardless of the laws of heredity, will continue until by law prevented, and the initiative step in the way of reform must come from the medical profession. Require those who would marry to produce evidence such as suggested by Doctor Brower, or else give medical men the sole privilege of performing the marriage ceremony, and hold these medical men on their honor to unite in wedlock only those persons who give satisfactory evidence of having no taint which can be handed down to posterity to the detriment of the community.—*Fort Wayne Medical Magazine*.

ÆTIOLOGY OF EPILEPSY.—Kraniski expresses the opinion that a regular connection exists between the excretion of uric acid and epileptic attacks. He observed that for twenty-four to forty-eight hours before an attack the uric acid excreted rapidly fell to below normal, and after the attack again rose. As soon as the quantity of uric acid excreted falls below 0.45 gramme in an epileptic, an attack may be expected with certainty. In opposition to the opinion of Haig, he regards epilepsy as a disease of tissue-

change, and not as a nerve lesion. In epilepsy there are certain deviations from normal tissue-change, in the form of diminished formation and excretion of uric acid. As soon as these abnormalities reach a certain intensity, a product is formed that acts on the central nervous system as a poison; it irritates the eclamptic centre, and an epileptic attack succeeds. Epileptic attacks must be looked upon as means of self-defense of the organism against a morbid course of reaction which would otherwise lead unavoidably to destruction of the individual. Blood withdrawn during a free interval has no effect when injected into rabbits, but when withdrawn during the height of an attack one to three cubic centimeters immediately cause paralysis of the posterior extremities and periodical convulsive attacks, under which the animal generally succumbs in from four to eight days. These experiments confirm the belief that a poisonous product of abnormal tissue-change is present in the individual before an attack, which disappears under the influence of the attack itself.—*Berliner Klinische Wochenschrift*.

QUININE AND PALUDIC AMAUROSIS.—Demichieri points out wherein quinine amblyopia differs from malarial amblyopia. The changes met with in the eye as the result of malaria are optic neuritis, peri-papillary œdema, extravasation of leucocytes, plugging of retinal and choroidal vessels by pigmented leucocytes, and hence multiple hæmorrhages in the fundus; but the existence of such hæmorrhages is not always determinable by the ophthalmoscope—only by the microscope. In the pernicious form of malaria the patient may come out of his comatose condition quite blind, the blindness lasting an hour or more. If the loss of vision is persistent, one can always make out fundus changes, as above. In quinine intoxication the loss of vision is very persistent; from the first the whiteness of the disk is noteworthy, and the shrunken condition of the vessels; and these signs are present for years after the visual acuity has been recovered (when, as the result of malarial fever, there is contraction of the vessels, it is quite fleeting, and is limited to the arteries). There are no inflammatory symptoms whatever of the retinal disk. Central vision is the first to recover; the concentric contraction of the fields for white is very persistent; color vision suffers as much as or more than the vision for white. The pathology of the condition is believed to be retinal ischæmia from vaso-constriction of local or central origin. Prognosis is always more or

less favorable, even in cases where electrical excitation has failed to produce any sensation of light. In the way of treatment, nitrite of amyl and strychnine are recommended, but attention to hygiene is more important: living at a high altitude, exercise, massage, and baths. At the beginning, dorsal decubitus has proved of use.—*British Medical Journal*.

DISLOCATION OF THE ARCH OF THE FOOT.—On June 9th a woman, while crawling along a shed to reach a window, fell a distance of fifteen feet, alighting on her feet, dislocating the arch of the right foot. The foot turned outward like that of a negro, and the internal cuneiform could be felt in the middle of it. She made a wooden sandal to support the arch. There was no injury elsewhere, except rupture of the internal lateral ligament of the left knee.

Doctor M. D. Hoge, Jun., reports a similar case, in a man aged twenty, who, while in a somnambulistic state, climbed out of a fourth-story window, falling on his feet. The arch of one foot was completely broken, and it spread out flat—a protuberance being discernible in the middle. He made a leather wedge, which was put in the sole of the shoe, the thick edge inward. The man now walks as well as any one.—HENSON, in *Richmond Journal of Practice*.

A NEW FACT IN ANATOMY.—According to Winterhalter, the vessels of the ovary have a perivascular network of nerve-fibres. In the middle of the zona vasculosa lies a ganglion which is made up of structures wearing the characters of sympathetic ganglion cells; their processes surround the very convoluted vessels in the neighborhood, breaking up into delicate plexuses. Winterhalter was not able to actually trace any processes passing from the ganglion cells directly into the follicular zone, but he believes they enter that part of the ovary as the plexuses described on the vessels.—*Medical Times and Hospital Gazette*.

TALC IN URINE-TESTING.—A serious error in testing urine for albumen may result from previous filtration through talc, as has been recommended for the removal of mucin, the reactions of which with acids are similar to those of albumen. Talc has the power of removing albumen to such a degree as to invalidate the test. Also, when sugar is present it is nearly all removed by talc filtration.—*Medical Record*.

The Medical Age.

VOL. XIV.

DETROIT, DECEMBER 10th, 1896.

No. 23.

Original Articles.

LATERAL CURVATURE OF THE SPINE.

BY G. B. PACKARD, M.D.

In considering the treatment of lateral curvature of the spine, it may be well first to briefly call attention to some of the factors that are either directly or indirectly instrumental in producing this peculiar deformity. In this affection there is not only a deviation of the spinal column to one side, but also a rotation of the vertebræ upon their vertical axes. Unfortunately the deformity is easily acquired. It occurs more frequently in girls than in boys—some observers put the ratio at five to one, and others much higher. It undoubtedly begins much earlier than is generally supposed; there being no early pathological changes, and in many cases, consequently, no early subjective symptoms, the trouble is not likely to be discovered until the approach of puberty, a period at which the form of the girl is more carefully scrutinized by mother and dressmaker. When the surgeon first sees these cases they are apt to be well marked, and are often beyond the state of perfect flexibility. Ketch concludes, from an analysis of cases in the New York Orthopedic Dispensary, that lateral curvature begins between the eighth and the fifteenth year; and Eulenburg assigns an even earlier age.

The most frequent variety of this curvature is that wherein the convexity of the curve is to the right in the dorsal region; and many times, in addition, there is a curve to the left in the lumbar region. Here the left shoulder is depressed; the right shoulder-blade more prominent, higher, and farther from the median line; the left hip frequently higher; the left breast more prominent; and the whole trunk may lean to the right. This description might be considered to represent a typi-

cal case of lateral curvature of the spine—in other words, the cases most often met. It is quite probable that the frequency of this form is due to the fact that the great majority of children are right-handed.

There is a difference of opinion in regard to the relative importance of the two curves, and also as to which is the primary curve when they exist together. I believe, however, that, with few exceptions, the dorsal is the one that demands the greater attention, irrespective of its priority.

It is not necessary to discuss all the theories as to causation of lateral curvature, but reference may be made to a few of the more important. There are some at the present day who believe that the vast majority of these cases are due to unequal muscular action, but there is no evidence that the muscles are weaker on one side than on the other, or that there is any undue muscular contraction on one side early in the curvature, for when the patient is recumbent in the early stage the curve disappears. Still others believe in the osseous theory, or the abnormal growth of one side of the vertebræ and ribs, but the fallacy of this is evidenced by the disappearance of the curvature by suspension or recumbency during the early stage. The view which is most generally accepted at the present time, and the one that certainly appears most plausible, is that the deformity is produced by the superincumbent weight falling upon a spinal column that is frequently held in faulty positions, either from diminished muscular tone, habit, occupation, or carelessness. This, I believe, is a proper basis for treatment.

We have then to contend with a general condition that is below par, frequently a depressed state of the nervous system, and a subnormal resistance of the muscles, ligaments, and bones—a condition frequently seen in rapidly growing children; and, more

directly, with anything that disturbs the equilibrium of the spine, such as faulty attitude from muscular weakness or other cause.

Basing treatment, then (in the great majority of cases), upon the theory of superincumbent weight falling upon a weakened spine, the first indication is to remove this weight; but this, unfortunately, is generally impracticable, except for a limited portion of the time. Recumbency for a long period cannot be recommended, on account of its debilitating effects. I, however, am accustomed to advise many of these patients to assume the recumbent position for about two hours daily, so short a period being not at all debilitating, but rather tending to add to the nervous strength. The general health should be very carefully watched, and everything done to improve general tone—this is an important measure too frequently neglected. Since residing in Denver I have several times seen the curve apparently arrested by the general improvement brought about by a temporary sojourn in a lower altitude; and improvement in rapidly growing children, frequently anæmic and poorly nourished, is very noticeable after such a change, and is due, doubtless, to the fact that the waste process is somewhat retarded. To still further strengthen the spinal column and the muscles of the back, and thus prevent the former from being held in a faulty position, gymnastic exercises, as recommended by Mr. Roth, of London, are very important. One of his most important rules is that every individual, when performing these gymnastic exercises, shall assume a position as correct as possible—a position he terms the keynote,—and his idea is that the exercise should be such as to strengthen the muscles involved in maintaining this attitude. The patient should also be taught to walk and sit erect, and make every effort to ever keep the spine in a correct position. In addition to exercises and postures he should be encouraged to write with the left hand, especially upon a blackboard hung high upon the wall, in order that it may be necessary to reach as high as possible with the left arm. In this way not only are the muscles of the left side brought into use, but the act tends to correct the curve. The benefit from these measures will,

of course, depend largely upon the individual effort made; but it is necessary that all such measures should be under the supervision of the surgeon and not left to be carried out in a gymnasium. It is also a good plan to suspend the patient, and at the same time make pressure over the convexity of the curve with the hand, thereby trying to temporarily undo the deformity as much as possible, and direct that the same procedure be daily carried out at home in addition to the usual exercises.

The treatment, as just outlined, if thoroughly carried out, is frequently sufficient to arrest all trouble in the milder cases; but they should nevertheless be kept under observation for a long time, as there is always danger of the deformity progressing, and other means may be required to arrest progress. In more severe cases, or when the deformity grows progressively worse in spite of treatment, or where it is well marked with resulting pain and disability, it becomes necessary to use some support to prevent the faulty positions, and if possible to correct the curvature and relieve the pain.

To show that there is some misapprehension in the minds of many of the profession in regard to the mechanical treatment of this affection, I will quote the following from Doctor Louis A. Sayre:

Although I have written repeatedly and at length on the different modes of applying plaster of Paris in the treatment of Pott's disease and lateral curvature, it seems to me, from the papers I find in the various medical journals, that a number of physicians are under the erroneous impression that I use gymnastic exercises in cases of Pott's disease, and employ immovable plaster jackets in cases of lateral curvature, etc., etc. I wish to raise my voice in emphatic protest against what many gentlemen seem to regard as my method of treatment in lateral curvature—namely, placing the patient in a plaster jacket and leaving him there for a number of months, and then removing the jacket and replacing it by a second.

It is important that all mechanical appliances should be constructed in such a way that they can be easily removed for the purpose of gymnastic exercises; also at night when the patient is recumbent; and in some of the earlier cases, where they are advised, I think they should be constructed, in addition, so as to interfere as little as possible with the motility and action of the muscles of the trunk. It should be remembered that the

various appliances weaken the muscles of the back to a certain extent, and are only to be used when the exigencies of the case demand it, and to prevent increase of the deformity. If in the early stages it is found that the curve is increasing in spite of gymnastic exercises, and especially if pain be present (due, very likely, to pressure upon the nerve-roots), I think an immovable cast for a few weeks is beneficial; the relief from pain attained thereby is generally marked, and the patient will improve, consequently, in a general way; but this treatment must not be prolonged beyond a few weeks, on account of its tendency to weaken the muscular support of the back.

In other early cases, where pain is not so prominent, but curvature increasing, I prefer the light steel appliance devised by Doctor Shaffer, of New York, which acts on the principle of lateral leverage, and consists of a steel band around the waist, with a joint in the back and front; on the side of the projection an upright is attached to the band, with a pad for pressure over the convexity of the curve; and on the side of the concavity an upright extends from band to axilla and acts as a crutch to elevate the depressed shoulder, and is held in position by straps passing to the pad over the convexity. Upon either side, arms extend down a few inches from this band in front and behind, the ends of which are joined by a strap which passes around the side of the pelvis and is fastened by a buckle; tightening the strap on the side of the projection induces pressure over the convexity of the curve, and not only acts as a reminder to the patient to keep erect, but will also correct the curvature to a certain degree, when flexible. Tightening the strap on the side of the concavity will produce a slight counter-pressure at a point a little higher and on the opposite side from the main curvature. I think this appliance also prevents swaying of the trunk to one side. Another great advantage of this apparatus in these early cases is that it does not interfere as much with the motion of the trunk or action of the muscles, and consequently is not as weakening, as a corset; it is, therefore, especially adapted to the early cases that cannot be trusted without some support.

In cases that are further advanced, and where the curve is partially fixed, my prefer-

ence is a removable jacket, and in most cases the plaster of Paris is preferable, although felt, paper, wood or leather can be used.—The felt and leather, I think, are inferior; the wood is better, but much more trouble to make, and more expensive. The principle in all is the same, and any will serve the purpose of holding the spine in the improved position that may be obtained by suspension, manipulation, and other methods of correction.

In regard to methods for reducing curves where they are well developed, Lorenz has shown that properly applied pressure over the projection will cause improvement if carried out regularly. He advises twisting the patient daily for several weeks over a padded bar, where the spine is not permanently fixed. The vertebral rotation is partially overcome by standing as erect as possible or bending the spine backwards and throwing the weight upon the posterior portion of the spinal column; therefore, anything that increases the backward flexibility of the spine is advisable. A great deal can also be done by daily suspension coupled with manual force—that is, pressing the spine into shape with the hands during suspension. Any improvement that can be obtained in this way should be followed up by a new cast in the improved position. A useful way of carrying out this principle is to apply a jacket as suggested by Lovett and Bartow, of Boston. The jacket is applied as usual; is then cut off, and a cast of the patient made from the shell. The lateral projections of the cast are now partially removed by a knife, and a new jacket made over the modified cast, which is a little straighter than the body of the patient. It is provided with lacings, and can be removed during the night and for exercises. Of course the patient will complain if the pressure is very great, but will become accustomed to a reasonable amount, and the results are quite satisfactory. The use of mechanical appliances must in all cases be supplemented by gymnastic exercises.

The time required in the treatment of these cases will vary; but all, with the exception of the milder ones, should be kept under observation during the period of the patient's growth, although active measures may not be required during the whole of this time.

Denver, Colorado.

THE THERAPY OF ANTIPYRETICS.

BY DOCTOR P. L. BROUILLETTE.

The following, from (to me) an unknown author, so fully expresses my position that I quote it in full:

It is abundantly sufficient for my ambition if, availing myself most thankfully, so far as my knowledge extends, of the labors of others, those who have gone before me, I have succeeded in any degree in making opinions more definite and giving emphasis to that which is true.

The study of the therapy of antipyretics presupposes a knowledge of pyrexia, but until recently little was known of the origin of animal heat, either normal or pathological. Salmon, in his translation of Sydenham's "Processus Integri," written more than two hundred years ago, while criticising the author's treatment, which consisted of blood-letting and purging, defined fever as an "over-fermentation or boiling of the blood resembling a boiling pot," and adds, "if you would cease the boiling you ought not to take out any of the liquor which is within it; for so the quantity being lesser the same heat or fire continuing will have the greater power over it; but if you would allay the boiling, you must either put more liquor into it, which must be cold, or else (which is the better and true way) take away or much abate the fire which causes the vehement fermentation or boiling."

Modern research has given us a somewhat better definition of fever, but cannot improve much on the principles laid down for the treatment by our ancient writer.

Elevation of temperature is a prominent symptom in all forms of fever, and calls for treatment by antipyretics in the majority of cases, but much judgment is required in their selection and administration. Elevation of temperature is not necessarily the result of excessive heat-production; and the thermometer, while it indicates the balance between heat-production and heat-dissipation, does not tell us which is the more to blame for the pyrexia, to say nothing of the other factors which may exist.

Fever is classified as dynamic or sthenic, and adynamic or asthenic, according to the prominence of the symptoms on the part of the heart or nervous system, which is of im-

portance in point of treatment as indicating our therapeutics. But recent investigations have somewhat modified our views of fever, and have taught us, among other things, that elevation of temperature is not of necessity an element of great danger, but calls for treatment *per se* only when it exceeds certain not very well defined limits.

Macalister has given us perhaps the most lucid explanation of the nature of pyrexia. He considers the fever mechanism under three heads: *first*, a thermogenic or heat-producing mechanism; *second*, a thermolytic or heat-dissipating mechanism; and *third*, a thermotaxic mechanism, whose office is to exert a controlling or equalizing influence upon the mechanisms for the production and dissipation of heat.

Thermolysis, or the mechanism of heat-dissipation, acts chiefly through the blood-vessels and glands of the skin, and is under the control of the vaso-motor centres of the medulla and spinal cord. A certain part of heat-dissipation, amounting to perhaps twenty per cent. of the total heat loss, is accomplished through the respiratory organs, which are also under the control of a centre in the medulla oblongata. Thermogenesis, or the mechanism of heat-production, is seated in the muscles, which latter produce four-fifths of the body heat in health and perhaps a larger ratio in pyrexia; the remaining fraction being supplied by the secreting glands and the alimentary canal during digestion.

Our knowledge of the regulation of heat-production is still imperfect, but it is generally believed there is a cerebral centre and that it is inhibitory in character—its disturbance permitting rather than producing thermogenesis.

About all that is known of the thermotaxic mechanism just referred to is that its office is to maintain a balance between thermogenesis and thermolysis. While we may not be able to say in all cases of pyrexia which of the two mechanisms is more at fault, the thermogenic or the thermolytic, we are quite sure that in the dynamic form of fever we have a disturbed thermotaxis, an over-production of heat and not infrequently a defective heat-dissipation; hence the hyperpyrexia so common to this class of fevers. In the adynamic type, with the disturbed

thermotaxis there is a diminished thermolysis, and although there is of course heat-production it is not sufficient to account for the amount of pyrexia, except through the lack of heat-dissipation.

The various symptoms peculiar to the above-named types of fever it is not necessary to mention here, as we are concerned chiefly in the question of treatment of the pyrexia itself.

The pernicious habit of prescribing indiscriminately some one of the modern synthetic antipyretics of the coal-tar series for every elevation of temperature, regardless of other and not infrequently more important symptoms, is to be condemned. Elevation of temperature is not necessarily an element of great danger. It is Nature's way of getting rid of the *materies morbi*, and should be controlled rather than annihilated. It is, I believe, an established fact that most micro-organisms succumb under an elevation of temperature quite compatible with human life, and it is in this way that many of our infectious diseases are made to run a favorable course, and hence are called self-limited. We are quite ready to agree with Salmon in his rebuke to the ancient Sydenham for his purging and bleeding, but are we not quite as guilty as Sydenham and his followers when we administer antipyrin, acetanilid, phenacetin, or any of the coal-tar derivatives, to a patient with a rapid but feeble pulse, pale and moist skin, labored respiration and low delirium, and all the other symptoms of great prostration, because of a temperature registering 103° or 104° F.? Is it not quite as unscientific as calomel and venesection? And yet it is an every-day occurrence, and one need not be surprised at a mortality similar to Sydenham's. One of the most important as well as the most difficult branches of medical science is Therapeutics. Although great advance has been made of late in our knowledge of the physiological action and therapeutic use of remedies, this important branch of medicine has not, as might have been expected, kept pace with the more attractive and less difficult branches.

Could we but know the exact physiological effect and therapeutic use of each and all of our remedial agents, even with our present

knowledge of the ætiology and pathology of disease it would need but the skill of an artisan to relieve many of our most distressing maladies.

While it is true that a large part of our therapeutics is made up of empiricism, it is not without confidence and a reasonable assurance of success that we apply our remedies for the relief of diseases. Antipyrin or acetanilid given in appropriate doses to a patient with a temperature of 104° to 106° will as surely reduce the temperature as water will put out fire; but as the firemen often do more damage with water than would be done by the fire, so our best antipyretics may do more harm than the fever itself. As already stated, great judgment must be used in the selection and application of the remedy.

I have tried to show that there are two principal types or classes of fever, the one dynamic, the other adynamic, and that the thermometer alone does not indicate the treatment. I have gone farther into the pathology of fever than at first might be thought consistent with the title of this paper, but the object has been, first, to emphasize the fact that the elevation of temperature is not of the grave import at one time supposed, and, second, that in the selection of a remedy we should remember the two types of fever and should have an eye single to the effect desired. The coal-tar derivatives should, in my judgment, be limited to the dynamic type of fever. They are our best substitutes for the lancet. Besides being our surest and most powerful antipyretics, they are also all more or less analgesic. They relieve pain, a prominent symptom of this type of fever, lessen nerve tension, and promote thermolysis. Although so clearly indicated and happily effective in this form of fever, their use is not without danger if given in doses too large or too long-continued. Fevers never change their specific form or character, but if of long duration are apt to change their type or force and become adynamic. It is thus a remittent fever, if not properly treated, may lose its dynamic character and become adynamic; and I may add that nothing so contributes to this change as a too free or long-continued use of the coal-tar derivatives, whose use should be limited to the early stage of fever. The so-called "typho-malarial"

fever is nothing more than a protracted remittent, having nothing of the specificity of typhoid.

In the treatment of an adynamic fever, whether it be so originally or becomes so from maltreatment or continuance, the synthetic antipyretics are not more indicated than would be depletion by the lance, or any other depressing agent. For the treatment of this condition we should look to Nature's own antipyretic—cold water—best given in the form of the moderated bath; and but for the fact that it is frequently impossible to properly administer a bath to the patient, we should seldom need any other. In lieu of the bath we have in quinine a safe and efficient substitute if given in sufficient doses and at proper intervals. Not only is quinine a most reliable antipyretic, but at the same time it is our surest antiperiodic and indispensable in all fevers of malarial origin. Should we desire its greatest antipyretic effect, it must be given in sufficiently large doses, and combined with a small quantity of opium. From twenty to thirty or even forty grains given at a single dose (which, however, may be divided into four equal parts and given at intervals of ten or fifteen minutes) will insure its best effects. Although so universally used as an antiperiodic both by the profession and the laity, its antipyretic effect seems to have attracted very little attention until about the year 1889, when Vogt recommended its use for the pyrexia of typhoid fever, and indicated the proper dose. It is to Liebermeister, however, that we owe a more accurate knowledge of its true antipyretic action. He not only describes the dose and mode of administration, but follows with a long list of cases, proving most conclusively its power over fever, and adds that in over ten thousand administrations no bad effects occurred which could justly be attributed to the quinine. So positive is he of this effect that, if driven to the extreme of a single antipyretic, he would unhesitatingly accept quinine.

In the hundreds of cases in which I have given it for the reduction of a high temperature I have not been disappointed in a single case. If the dose given did not have the desired effect, it was increased at the next administration, and the *tinnitus aurium* and nausea mentioned by Liebermeister I have found

relieved or greatly mitigated by the addition of small doses of opium. I also advise a free use of lemons during the administration, which prevents nausea and at the same time promotes the assimilation of the quinine.

Huntsville, Alabama.

PENETRATING WOUNDS OF THE EYEBALL.

BY T. J. REDDINGS, M.D.

This subject is so comprehensive that I cannot hope to touch upon all its phases, therefore will confine myself to an attempt to emphasize such points as present themselves with especial force.

Wounds of the cornea, through foreign bodies, constitute by far the greater number of traumatic eye injuries. Here the eye should first be cleansed with a saturated boric-acid solution, then cocainized, and the foreign body removed by a spud or needle with a minimum amount of injury to the cornea. If the injury is slight, a weak antiseptic collyrium, dropped into the eye for a day or two, and the wearing of smoked glasses, will be all that is required. The more extensive injuries may demand compress and bandage, and the application of heat or cold—whichever is more acceptable to the patient—with the use of eserine or atropine to insure comfort. If the offending agent enters the eye while hot, experience has taught me that it is quite as important to remove the brownish char as it is to remove the particle of metal or emery which caused it; I have frequently observed very unpleasant sequels where this was omitted, hence deem this point worthy of special emphasis. When the offending substance is lodged in the cornea and penetrates the anterior chamber, it can be removed by the keratome or curved needle. If it falls into the anterior chamber, it should be removed at once by an iridectomy, and should it not escape with the aqueous humor it can be easily removed with the iris-forceps. All wounds of the cornea show a tendency to heal kindly, as is conclusively demonstrated by the many operations which are made in this structure to reach the interior of the eye. Wounds accidentally inflicted are, however, not always

clean-cut, and their edges not easily kept in perfect apposition; and asepsis and apposition are the two principal points upon which primary union depends. The simpler wounds of the cornea, carefully treated, usually heal without a visible scar.

Penetrating or incised wounds of the cornea are very generally followed by prolapse of the iris, the extent of the protrusion varying with size and position; and a small penetrating wound near the corneal margin is more likely to be attended with prolapse than a larger incised one near the centre. The amount of prolapse is to a certain extent dependent on the size of the wound, but beyond one of a limited range, such as is produced by the point of a pair of scissors or the blade of a penknife, the tendency to prolapse is diminished as the size of the wound is increased.

Prolapse of the iris always constitutes a formidable complication, and usually taxes the surgeon's ingenuity,—it is often difficult to decide which of the two plans to pursue, operative or non-operative, though I hold the latter should always be given a fair trial. After the wound has been thoroughly cleansed, the iris may be replaced with a spud, and a solution of eserine or atropine, according to location, employed to put the iris in a splint, as it were. If the iris cannot be retained in place by this method, recourse may be had to the method of Gama Ponti, viz.: excise the prolapsed portion of the iris, free all adhesions to the margin of the ulcer, and cover the opening in the cornea with a flap of bulbar conjunctiva, which should be cut twice as large as the opening and pushed into the orifice with a blunt probe; a firm binocular bandage is then applied, and the eye not dressed until the third day, when it will often be found that the conjunctival flap has healed into the ulcer.—A flat non-adherent cicatrix results, or, in other words, an ordinary corneal scar without staphylomatous bulging, and a circular pupil. De Schweinitz reports several gratifying results by this method.

If the lens or its capsule is injured, there will in all probability be developed a traumatic cataract. The point of injury is, within twenty-four hours, indicated by an opaque patch, which gradually increases until the

whole lens becomes opaque. The rapidity of cataract-formation will depend partly on the extent of the injury, and partly also on the age of the patient. If the rent is large and the substance of the lens broken into, the aqueous humor will come rapidly in contact with the lens substance, when the transparency of the latter is quickly destroyed. If the rent is small, the development of the cataract will be very much more slow; it exceptionally happens that a small wound of the lens capsule produces only a limited opacity.

In relation to injuries of the lens, Hirschberg reports two cases of particular interest: A boy fourteen years old, while exploding a gun-cap, was struck in the left eye, the copper particle being easily visible in the lens; opacity was limited to the immediate site of the foreign body. The other case was that of a man forty-six years old, wounded in the right eye by a piece of gun-cap, which was seen in the outer layers of the perfectly transparent lens as a copper splinter five centimeters in length; only a light gray cloudiness of the lens capsule immediately over the foreign body was discernible. Of these two cases he says, "the copper splinter in the lens was well borne for months and years without the development of a disturbing cloudiness; the eye read the finest print, and did not require operation."

Slight injury to the lens or capsule may, however, result in so great a swelling and inflammation of the lens that the safety of the eye demands its immediate removal—an operation that usually terminates happily.

A wound of the cornea, even though the lens or iris be implicated, is less fatal to the eye than a similar wound in the sclerotic. The hæmorrhage in the former instance is into the anterior chamber, and mixing with the aqueous humor it is rapidly absorbed, whereas in the latter if hæmorrhage ensues it is into the vitreous (and frequently also between the choroid and retina) and is slowly absorbed, while irreparable damage is done to that portion of the retina which has been displaced by a blood clot. Wounds of the sclerotic sometimes heal with difficulty, and the difficulty increases as the location of the wound recedes from the margin of the cornea; this is probably occasioned by the fact

that the margins of the wound remain patulous, the tissues of the sclerotic refusing to yield to the diminished size of the vitreous within it; hence it is that in injuries of the sclerotic, where only a small quantity of vitreous has escaped, there is a tendency on the part of the lips of the wound not to come together, and consequent inability to secure primary union; but these wounds unite quickly if the edges are brought into apposition by a fine silk suture. Bowman cites a case in which a wound in the sclerotic remained patulous for three days, and another in which no attempt at union had taken place one week after the accident, yet in both these cases immediate union followed after the edges had been brought into accurate apposition by a single fine suture. The occasional cystoid cicatrix which is found could, I think, be avoided by recourse to suturing. The danger of a wound to the eyeball is immensely increased if the injury is located in the sclero-corneal region involving the ciliary body. The risk to the injured eye is very great, but the chief danger is the chance of the other eye becoming involved in a sympathetic ophthalmia.

Every penetrating wound of the globe should be especially examined with reference to the possibility of there being a foreign body within the eye. The history of the case should be carefully gone into with a view to ascertaining the exact nature of the material which struck the eye, whether large or small, by what force, and in what direction. The eye itself should be examined first superficially, then the iris and lens. If the wound in the cornea suggests that a foreign body may possibly have penetrated it, and yet the same is not visible in the iris or lens, the pupil should be dilated to bring the lens into full view, since the body may have lodged in the margin of the lens behind the iris. Oblique illumination is of immeasurable value in this examination of iris and lens; and if such does not reveal the foreign body, resort must be had, if the conditions are favorable, to the ophthalmoscope, when the whole fundus should be carefully scanned and the foreign body located if possible. Unfortunately, however, these injuries are sometimes attended by hæmorrhage, which entirely obstructs the view of the interior of the eye.

Rohmer* says that when a foreign body reaches the deeper parts of the eye it will cause disorder varying in intensity and gravity according to its size, the region of its entrance, its degree of cleanliness, its chemical composition, the place which it occupies, and its action on the neighboring parts. "After its penetration, the eye may be immediately and irrevocably lost from the extent of the lesion, escape of vitreous, hæmorrhage, or infection; or the foreign body may enter by a very small opening, and only cause an insignificant lesion, with partial or complete preservation of vision."

The location of the foreign body will in a measure determine the degree of tolerance, different structures reacting differently to its presence. In the lens, for instance, a small foreign body may be well borne for years, and ultimately be removed with the shriveled and hardened cataract. In the posterior segments, however, a foreign body will rarely be tolerated; and in the vitreous, choroid, and ciliary body, even though it become encapsuled, there will sooner or later develop plastic or purulent inflammation, with consequent destructive ophthalmitis.

The treatment of these cases will depend upon the nature of the foreign body. Coppez observes that in seventy cases of foreign body in the posterior hemisphere of the eye, forty-two were iron or steel, ten were lead shot, ten fragments of cartridges or pieces of copper, six fragments of stone, one zinc, one wood.

If the foreign body is susceptible to such force, it should be removed as soon as possible after the accident with the electro-magnet. From the statistics gathered by Hirschberg it is apparent that during the four years preceding the use of the electro-magnet, of twenty-four cases of metallic fragments in the vitreous, all were recorded as failures; and during four succeeding years in which the electro-magnet with antiseptics was employed, of thirty-five cases there were only twenty-four failures. Without the magnet he did not record one successful case during ten years, but in the following decade, with the magnet, seven of thirteen successful cases

*"Extraction of Metallic Foreign Bodies from the Posterior Segments of the Eye by the Electro-magnet," *Annales d'Oculistique*, March, 1896.

were satisfactory, and six mediocre. These figures certainly justify the use of the method. But if the foreign body is not magnetizable, the eye should be enucleated as soon as there are signs of obstinate inflammation.

Marinette, Wisconsin.

REMARKS FROM THE STANDPOINT OF SOCIOLOGY.

BY C. C. MAPES.

The ideas suggested in my paper on "Higher Enlightenment versus Age of Consent"*—that sexual appetency belongs equally to the male and female, and that very young boys are often induced to indulge in sexual intercourse by girls who are older—have been contradicted and criticised by those much higher in authority than myself, but I still maintain that such cases occur with greater frequency than the majority of observers are inclined to admit. In substantiation I quote two cases reported by Doctor Bernard Wolff, of Atlanta,† that are of interest not only from a professional but also from a sociological standpoint:

A poorly nourished negro boy, three years of age, was brought to the clinic for treatment of frequent and painful micturition of a week's duration. Examination revealed a penis of unusually large size, with a swollen and oedematous prepuce, from the everted orifice of which a stream of thick, greenish-yellow pus was issuing. A slide was obtained from this, which was found, after staining with carbol-fuchsin, to be swarming with gonococci. The mother stated that she shared her small house in the negro quarters with a family in which there were a number of half-grown girls, and that shortly before the boy had begun to complain of pain on urination she had detected him in the act of copulating with one of these girls.

A well developed negro boy, five years old, was brought by his parents for treatment of cystitis that had existed for ten days. There was an almost continuous dribble of urine, and great pain and distress in the region of the bladder. A small quantity of pus was obtained by stripping the urethra, and stained with methyl blue; it was found to contain a considerable number of gono-

cocci. The boy's mother expressed no surprise when I informed her of the nature of his trouble, and said that she had suspected it, as the boy slept with a mulatto girl of fourteen, who had several times been caught in the act of drawing the boy on top of her; when remonstrated with, she had feigned ignorance of the meaning of the reproof. I had an opportunity of examining this girl some time afterwards, and found her suffering from vaginitis, presumably of gonorrheal origin.

These cases, while not unique, are of sufficiently infrequent occurrence, especially when the disease is contracted by actual sexual connection and not accidentally or intentionally inoculated, to be of interest. They serve to illustrate the extreme precocity of the sexual instinct in the negro.

It is a well recognized fact that the negro girl, in the Southern states, menstruates not infrequently at nine years, and that the appearance of the catamenia is seldom later than the eleventh year; and it has always been assumed (whether correctly or not is an open question) that the sexual instinct in the colored race is much stronger and is manifested much earlier than in any other class of individuals. As far as my research extends, no adequate reason has thus far been deduced for the undue exhibition of sexual precocity. Several theories have been advanced, but none seem to satisfactorily cover the case.

In an article recently published in the *Arena*, an able authority cited as an argument against raising the age of consent in one of the Southern States to sixteen or eighteen years, that colored girls matured at about eleven years; that many of them entered prostitution at the age of eleven or twelve years, and many more before they reached sixteen or eighteen; that this fact would be a prolific means for working evil were the age specified by the statute elevated. The truth of his argument must be admitted, but of course it would not apply with equal force in States where the negro is not a factor. It must be remembered that the civil law makes no distinction between the white and black races.

It is quite common for mothers, especially in the Southern States, to employ young black or "yellow" girls to nurse and care for their children, both male and female, and

* MEDICAL AGE, vol. xiv, No. 4.

† *Pediatrics*, vol. ii, No. 6, 1896.

the inference is reasonable that in many instances young white boys are induced to copulate by the "yellow" nurse. The incentive to evil thus engendered in the boy's mind is a pernicious factor that should not be underestimated. The view I have above expressed is strengthened by a knowledge of the conditions that existed in the Southern States during the days of slavery. Further reference to that phase of the subject is unnecessary and irrelevant in this connection.

A careful search through the literature will reveal very few cases like those reported by Doctor Wolff—*i.e.*, where venereal disease has been communicated to young male children from older females by actual sexual contact; but, as previously indicated, I believe young boys are induced to copulate by females who are much older more frequently than is generally supposed. I have found several instances where gonorrhœa has been communicated to female children under eight years of age by males from seventeen to twenty-four years old, the method of communication being undoubtedly an attempt at sexual intercourse, the entrance of the male organ being sufficient to cause infection within the vagina of the child.

A paragraph on the mental, moral and social condition of the Southern negro may be of interest, and for this reason I will cite the evidence afforded by the ninth edition of the *Encyclopedia Britannica*:

It is more correct to say of the negro that he is non-moral than immoral. All the social institutions are at the same low level, and throughout the historic period seem to have made no perceptible advance except under the stimulus of foreign (in recent time notably of Mohammedan) influences. Religion is a system of pure fetichism and worship of ancestry, associated with such sanguinary rites as the "customs" of Dahomey and Ashantee, and a universal belief in sorcery.

Of course the latter two sentences do not refer particularly to the negro race in America, and they are simply quoted for reference.

After treating of the characteristic differences in the entire anatomical structure of the negro as compared with other races, the following appears:

To this premature ossification of the skull, preventing all further development of the brain, many pathologists have attributed the inherent mental inferiority of the blacks, an inferiority which is

even more marked than their physical differences. Nearly all observers admit that the negro child is on the whole quite as intelligent as those of other human varieties, but that on arriving at puberty all further progress seems to be arrested. No one has more carefully studied this point than Filippo Manetta, who during a long residence on the plantations of the Southern States of America noted that "the negro children were sharp, intelligent, and full of vivacity, but on approaching the adult period a gradual change set in. The intellect seemed to become clouded, animation giving place to a sort of lethargy, briskness yielding to indolence. We must necessarily suppose that the development of the negro and white proceeds on different lines. While with the latter the volume of the brain grows with the expansion of the brainpan, in the former the growth of the brain is on the contrary arrested by the premature closing of cranial sutures and lateral pressure of the frontal bone."

It must be at the same time confessed that the question of the mental temperament of the negro has been greatly complicated by the partisanship of interested advocates on either side. But for this disturbing element it would perhaps be readily admitted that the mental are at least as marked as the physical differences between the dark and other races. And as both are the gradual outcome of external conditions fixed by heredity, it follows that the attempt to suddenly transform the negro mind to foreign culture must be, as it has proved to be, as futile as the attempt would be to suddenly transform his physical type. On his moral status, even when removed from the old associations and brought directly under more favorable influences, a lurid light is cast by the report of the Reverend Doctor Tucker at the American Church Congress for 1883 on the present condition of the black communities in the Southern States. "I know of whole neighborhoods," he tells us, "where there is not one single negro couple, whether legally married or not, who are faithful to each other beyond a few weeks. In the midst of a prayer-meeting I have known negroes to steal from each other, and on the way home they will rob any hen-roost that lies conveniently at hand. The most pious negro that I know is confined in a penitentiary for an atrocious murder, and he persists in saying he can see no offense against God in his crime, though he acknowledges an offense against man." Mention is further made of negro missionaries guilty of the grossest immorality, living in open concubinage, addicted to thieving, lying, and every imaginary crime, yet all "earnest and successful preachers, and wholly unconscious of hypocrisy. Their sins, universally known, did not diminish their influence with their race. It was impossible to doubt their absolute sincerity."

It is important to remember that the negro population of the United States comprises all shades, from the black (full-blood) to the

octoroon (one-sixteenth), the latter being scarcely distinguishable from the white race. The colored element represented, according to the estimate for 1800, in round figures, 1,000,000 souls; estimate for 1880, in round figures, 6,600,000, being for 1800 nineteen per cent. of the total population of the United States, and in 1880 thirteen per cent. Their mental, moral and social status of the present day ranges all the way from good to bad and indifferent. What the future of the race will be, from any standpoint, is absolutely an unknown quantity.

Louisville, Kentucky.

CONSANGUINITY.*

BY G. C. EGGERS, M.D.

I use the term *consanguinity* as denoting blood relationship, in contradistinction to affinity, which signifies relationship by marriage. It is not my purpose to dwell at any great length on the moral or legal phases of consanguineous marriages, but simply to point out the evil effects produced upon the offspring by the fact of blood relationship existing between the parents. Very great differences of opinion exist among different nations and individuals respecting the marriages of kin, and in ancient times such unions were not considered abhorrent or impious, for we read that Abraham married his half-sister Sarah, and that Isaac espoused Rebekah, his first cousin; and in the history of the Ptolemies many marriages occurred between brother and sister. Since the advent of the Christian era, however, such alliances have been regarded with abhorrence, especially if the kinship were nearer than that of second or third cousins, and were even prohibited by law in many countries.

Not only are consanguineous marriages forbidden by legal enactment, but many churches, notably the Roman Catholic, impose the requirement of a special dispensation for the marriage of persons whose natural relationship is closer than that of the children of first cousins.

It is no easy matter to obtain from the

parents reliable or accurate knowledge of the effects on the children of consanguineous marriages; nevertheless statistics innumerable are available, some appearing to prove that the offspring are as a rule defective, while others have for their object the refutation of that opinion—consequently statistics are for the most part uncertain and deceiving.

It has been my fortune for some time to practice medicine in a community where the intermarriage of kin is, and has been for several generations in the past, a very common occurrence. I have thus been afforded ample opportunity to give the matter very thorough observation and study. As a result I have arrived at the opinion that consanguineous marriages should be not only discouraged, but legally prohibited, as the effects on the children born of such unions are deleterious in the extreme—effects or defects that are both physical and mental, more especially the former.

Whilst my observations have been limited to this one community and to those of the present generation, I also gathered, through conversation with some of the older inhabitants of the district, that the fathers and mothers two or three generations back were persons of more than ordinary intelligence—some held high offices, some were literary, and most were physically above the average. In comparing with the present generation the contrast is great; and whilst there are no imbeciles, there is only ordinary intelligence, and in fact the majority might justly be considered as below the average, considering their educational opportunities and facilities.

Physically none are what one would term robust, but on the contrary most are frail, and many are deformed in numerous respects. I call to mind the children of several families, the report of whose imperfections may be of some interest. All the children, four in number, of one family, are completely bald. Think of girls eight and ten years of age wearing wigs! Another child was born with a telangiectasis of the tongue that completely filled the mouth and greatly interfered with nursing at the breast, making it necessary to feed with a spoon. Another was born at full term without nails on either fingers or toes.

In another family the children were afflicted with a condition usually termed scrofulosis

*Read before the West St. Louis (Mo.) Medical Society.

although neither parent showed any evidence of constitutional trouble of that character. These children had otorrhœa and blepharitis continually, cervical, inguinal and submaxillary abscesses constantly succeeding one another.

It is claimed by some that consanguinity has a depressing effect on reproduction, but my observations do not confirm this, as I know of but one family—the husband and wife are first cousins—to whom no children were born. The average number of children in the other families is about four. Socially they are inclined to be reserved, but no more hospitable people has it been my lot to meet. Religiously, whilst they are not enthusiasts, they observe the teachings of Christianity with greater reverence than the majority of people. Intemperance is unknown, and nowhere are there more law-abiding citizens.—I call attention to these things, not to claim they are the results of consanguineous marriages, but to illustrate the point that such marriages in this community, while not productive of children of great mental or physical strength, cannot be said to have detracted from their moral sense.

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THE RHINOSCOPE IN GENERAL PRACTICE.

BY E. M. BEHRENS, M.D.

I have under my care a man, seventy years of age, who has been for a long time troubled with asthmatic attacks, besides such small ills as are referable to what he calls catarrh of the nose. The nasal septum is deflected over to the right side, and the convex part touches the outer wall at the right nostril, while the left nostril is almost wide enough to admit of the little finger being introduced, because of the concavity of the septum on this side. The only remedy Nature can offer is a somewhat compensatory hypertrophy of the lower turbinated body. Through this side the nasal respiration takes place, and, because of its wideness, is entirely satisfactory. While the upper strata of this same nostril are clogged by polypi, they do not affect respiration, but are the cause of asthmatic attacks. As the right nostril is entirely closed and does not

yield to any nose speculum, I had to saw out a piece of the cartilage and drive a pin through it, with head and tail on the left (concave) side, so as to straighten it and make it possible for me to work on the right side. The right nostril was filled in the upper strata, too, with polypi, which were then easily removed. The asthmatic attacks left him with the last traces of the growths, and for the first time in many years the man enjoyed a whole night's undisturbed rest.

Records of this kind are as common now as they were formerly rare. When I, about twenty-five years ago, served my term in the surgical ward of a hospital, such cases were treated with a laminaria plug, which was hammered into the clogged nostril to the accompaniment of the most pitiful and heart-rending cries of the patient, to be left there as long as he could endure it, and then extracted, the extraction being accompanied by the same agony. Cocaine was not discovered then, and chloroform was likely too expensive and troublesome for such a trivial performance as plugging a nostril. And—think of it!—after repeated sufferings there was no improvement of the condition for which the patient sought medical assistance. Nowadays the most formidable operations in the nostrils are performed painlessly and with the most gratifying results, thanks to the head reflector, nose speculum, and cocaine.

What a contrast between then and now! Is the medical profession at large aware of the astonishing progress that rhinology has made in the last decade or two? I think not. Connected with one of the Chicago medical schools for several years, I never had the pleasure of meeting with a medical *frater* who knew anything about rhinoscopic examination. It had not been required for graduation, and the nose speculum had been more of an ornament than anything else for years. Just think of the many opportunities lost! The responsibility for this perverse state of things rests, of course, with our medical schools, as we all prefer to “shuffle off” our study in the shortest possible time in order the sooner to be let loose on the public. This is only human; but the fact is that a system which allows of such a shuffling off is little short of crime, toward both patients and practitioners, for which there is no

excuse. And it is no atonement for this crime, the fact that you can later take post-graduate courses to perfect yourself in some branch of medicine which was not less indispensable at the beginning of your career than later in life. This would be tantamount to saying: Take your stethoscope with you, listen to the râles and rhonchi in the lungs, and come again in five, ten, or twenty years, when you can afford it, and see if you can, with the nose speculum, find an explanation (in the nose) of the sounds you heard years ago in the lungs. My opinion is that of the two we had better leave behind the stethoscope. This may appear to be an exaggerated opinion of the importance of the nose speculum, but I trust my readers will agree with me before I am through pointing out the ætiological rôle of nasal disorders in many of the local and general affections we are called upon to treat. On the other hand, I will admit that specialists are apt to attribute too many ills to some local disorder in their favorite field, and I shall therefore deem it obligatory on my part to steer clear of what is not proved beyond doubt. I may indulge in some theorizing myself—it can hardly be avoided—but I do not expect any one to implicitly believe in it until he has satisfied himself whether I am right or wrong.

One-half of civilized humanity is neither well or sick. The fruit of the artificial, as distinguished from the natural, mode of living is the proclivity or disposition to different ailments, running through generations—local or constitutional weaknesses which in medical terminology are called *habits*. Thus we hear of a neurotic, rheumatic, catarrhal, or scrofulous habit, etc., without really knowing what these terms mean. The pathological substratum for these different kinds of habits has never been demonstrated, and will likely never be, for the perverse physiological or the pathological condition can only be studied on the living subject, as every trace of it disappears with death. The products of the diseases which these habits have fostered are easy of demonstration, but the first cause of what was originally functional disorder is not positively known, and we have to resort to theorizing, and consequently are more or less in danger of stepping on untenable ground. The main cause of functional disorder is very

likely to be found in the ganglia of the sympathetic system, which superintends the different functions of the different organs in the human machinery; but whether an irregular blood-supply or overloading of the blood with deleterious products causes a molecular derangement of the ganglionic cells, or the causation lies deeper, is unknown, unless we, from the fact that functional disorders are as a rule temporary, infer that they can only be due to an ever-changing condition, namely, the blood-supply. That the ganglia derive their vitality or energy from the blood is no theory, but the theorizing comes in when we try to explain what modifies or alters this energy and in which way it is brought about. The term "habit" so far means that we know nothing about it.

For practical purposes this ignorance is least regrettable so far as the so called catarrhal and neurotic habits are concerned, for the reason that means are always at hand, not only to observe, but also to conquer them to a certain extent. Of course, when I include neurotic habits I mean only neuroses due to the same causes which produce the catarrhal habits. To make myself clear: when the catarrhal habit manifests itself in a person with a cold in the head at any time of the year, and runs its course in a few days, with headache, sneezing, watery and later mucous or muco-purulent discharge, and in another person the same symptoms set in at a certain time—for instance, when the pollen of the flowers fills the air—the latter condition is called hay-fever, while the first is a common cold. The "cold" belongs to the catarrhal habit, while the other belongs to the neurotic. It has been said that asthma caused by nasal disorders is nothing but "hay-fever in the lungs"—I would rather say bronchi,—and it is undoubtedly true, so far as they both have a common cause; but the propriety of calling either of them neuroses is questionable, when we remember that we will always find a pathological substratum for these "neuroses" in the nose. Change of climate, a sea voyage lasting as long as previous attacks in the summer, and this neurotic habit has lost its sting. How fortunate it is that this neurosis (hay-fever) is met with mostly in those who can afford to entertain such a luxury and go to a watering-

place, while those who cannot afford it must satisfy themselves with a few cauterizations and obtain a radical cure.

This belief in a neurotic habit is found not only in the medical profession at large, but even text-books on rhinology expound such a theory. Consequently the true meaning of such neuroses will be very slowly recognized. A "habit" which can be removed by a cauterization or two is, according to my notion, only an expression of nasal disorder, which at some time and in some person might, because of regular recurrence, present the appearance of a habit, but that is all. The catarrhal habit has not much better feet to stand on, as its only excuse lies in the fact that colds may recur with a certain regularity, which depends first upon a pathological condition in the nose, and next on certain external—for instance, climatic—influences, which are apt to make this pathological condition permanent.

This condition, which has as yet not succeeded in setting up the theory of a *habitus*, is represented by what we call a hypertrophic catarrh or hypertrophic rhinitis. I do not recollect of ever having seen a case of catarrhal or neurotic habit without this pathological alteration of the mucous lining, and I will go so far as to say that the manifestation of this alteration depends not so much on the intensity of the disease as on the *extensity* of it; that is to say, the subjective symptoms are more dependent on the locality than on the affection itself. So we may see considerable hypertrophy of the lower turbinates causing little or no annoyance, while a slight disturbance of the middle turbinate calls forth a train of symptoms, from a common sneeze to severe attacks of hay-fever or asthma, which would indicate a very serious nasal affection. The secret of this rests on a very simple fact—namely, that the system itself participates in the process, not so much by the hypertrophy as by the passive irritation which it is exposed to on account of its proximity to the middle turbinate. The fine ramification of the sphenopalatine nerve, which is a branch of the trigeminus, accounts for this hypersensitiveness of the upper region of the septum, giving rise not only to sneezing and tears, but to difficult breathing and other disturbances, all of which are quite out of

proportion to the extent of the change in the nasal structures. Where the upper part of the septum is gone, or where it gives way to the middle turbinate, we do not find the grave symptoms which characterize "hay-fever" and asthma.

From this exposition it will be evident that a rhinoscopic examination is sadly needed to combat diseases which, at one time or another, all are called upon to alleviate or cure. A chronic conjunctivitis is no *habitus*, but merely a local trouble, which we treat locally and never expect any improvement from internal medication. The presumption that the reflex neuroses above mentioned are never referable to a nasal disorder if the nasal respiration is free, is not well founded; the respiration takes place through the lower part of the nostrils, below the under surface of the middle turbinate. As this part is the widest and allows of a considerable degree of hypertrophy of the lower turbinate before breathing is affected, it will be seen that nasal or no nasal respiration is no guide to the condition of what lies above. In many cases of nasal polypi, where by merely tilting the tip of the nose the growths can be seen almost hanging out of the nostrils, no such severe symptoms as those of asthma or "hay-fever" are present, for the reason that the polypi seek the lower respiratory tract of the nares and do not cause any pressure at all; while other cases, in which the speculum is required, and even the magnifying glass, to discover a pressure, are accompanied by the most severe reflex phenomena.

So much for nasal disorders whose most conspicuous manifestations are the reflex phenomena. It would make my article too long to go into the details of these manifestations, so I shall only in a cursory way mention some reflexes due to nasal disorders, as, for instance, cough—the so-called dry bronchitis,—headaches, functional disturbances of the eye and ear, which are often maintained not only reflexly but through continuity of the disease process throughout the nasal duct and Eustachian tube; also alterations of the smell and taste, and of the voice, due to one or both of these factors.

As to functional disturbances in the digestive tract, these are, with one exception (nervous dyspepsia), due to the secretions

from the nose and throat, which swallowed with the food produce functional disorders whose cardinal symptoms are indigestion, constipation, or flatulence and diarrhœa.

Thus we can establish the rule that functional disorders of the respiratory tract are reflex, while those of the digestive tract are directly due to the secretions from the nose and throat.

The throat is the most abused part of the whole human anatomy, not only because the text-books devote so much space to its pathology and therapeutics, but also because it is a sore object for controversy as to the merits of gargles, sprays, or powders, while it actually wants none. The best therapeutics for a non-specific affection of the throat is to cure the nasal disorder, and the throat will mostly take care of itself. Any treatment of the throat is symptomatic at best, and does not strike at the root of the evil. My readers can easily convince themselves of this by merely applying cocaine to the affected pores of the nostril, no matter whether in a simple tumefaction of the mucous lining, hypertrophy, or stenosis, when, as a rule, the throat will be seen to assume a normal appearance, and the apparent catarrhal angina or pharyngitis temporarily disappears. A normal throat is so extremely rare where a nasal malady is present that we are perfectly right in forming conclusions from the appearance of the throat as to whether a nasal disorder exists or not.

This much for the benefit of those who find it a hardship to become familiar with the use of the rhinoscope. I have for several years made it a rule to take the temperature of patients with nasal disorder—principally atrophic and sometimes hypertrophic rhinitis,—and invariably it has shown an elevation of one to two degrees above normal. An elevation of about one degree causes no constitutional trouble worth mentioning, while a rise of one and a half to two degrees is usually followed by general *malaise*, pressure or heaviness over the eyes, headache, dizziness, a feeling of weakness affecting the whole body and rendering the patient entirely unfit for bodily or mental work. In such cases nothing could explain the fever except the nasal disorder, and a cure or improvement of this would, as a rule, do away with the symp-

toms. Even alterations of the sound in the apex of the lungs, as crepitation, or fine râles, would disappear by merely local treatment of the nose, and thereby prove the intimate connection of this part of the lungs to the nose, and how easily certain nasal disorders are reflected in the most vital parts of the organism. Such cases are undoubtedly very often regarded as incipient tuberculosis, and account for the frequent cure of this disease. I do not believe that a mere local treatment of a nasal disorder will cure a tuberculosis, but it may be that a predisposition to tuberculosis is maintained by nasal disorder, and if so the condition of the nose requires most serious consideration on the part of the medical man, whether the patient directs attention to this organ or not.

It is a prevailing belief that catarrh and dyspepsia are the main ills on this North American continent, and the climate and kitchen are held responsible for the prevalence thereof. But when we consider the diverse and multitudinous affections, and the predisposition to functional disorders, that are directly dependent on nasal irregularities, it is no wonder that a combination should attack a patient who might not be so very ill, but nevertheless is never quite well. Medical practice has satisfied itself up to this time with looking at the patient's tongue as a diagnostic aid, disregarding entirely the more important entrance to the inner man, the nose. Failing in this, it has multiplied its diagnostic nomenclature, and the immediate result has been not only "habits," but also many diseases, which by improvement of diagnostic means will disappear again—when neurasthenia, nervous prostration, ague, ephemeral fever, etc., will be only remembered occasionally as *testimonia paupertatis* of a past age.

When a child eight months old dies from nervous prostration, and death certificates of this character are treasured in county offices, it is *prima facie* evidence that the diagnostic art needs a lift, which is sure to be had by a general employment of the rhinoscope. Anterior rhinoscopy is very easy of execution, while posteriorly it is more difficult, but practice and perseverance will overcome the difficulty and repay the physician many times for the trouble of ferreting out ætiological

factors in a multitude of affections which he is called upon to treat.

Familiarity with the diagnosis will lead to familiarity with the therapeutics. Only a small percentage of nasal disorders require heroic treatment, which ought to be left to the specialist, while most of them are benefited by such mild measures as lotions, sprays, or astringents, which have the merit of not doing harm. This cannot always be said of heroic treatment with the electro-cautery, or especially acids.

Rhinology enables the physician to do much good to his patients, but too soon it ceases to be a boon to many of our profession, who, after a study of six weeks' duration, do not hesitate to heroically treat atrophic rhinitis, and thereby do much harm.

Minneapolis, Minnesota.

RUPTURE OF URETHRA THROUGH COITUS.

The *Prager Medicinische Wochenschrift* describes a case of this character. The man during coitus was suddenly attacked with severe pain just behind the corona of the glans penis, followed by considerable hæmorrhage, which latter had its origin in a ruptured urethra; there was little swelling and almost no ecchymosis, so it is presumed the injury did not embrace the soft parts, and perhaps only the mucous lining of the canal.

Rupture of urethra from this cause is rare, but by no means unique; generally the accident occurs farther back, and in men who suffer, or have suffered, from stricture. The *rationale* is then plainly apparent.

POISONING BY SORREL LEAVES.

The *Lancet* (London) reports two fatal cases of sorrel poisoning. The leaves were eaten in the afternoon, and the two children were dead in less than twenty hours. The treatment consisted in the administration of chalk suspended in milk, along with lime-water and castor oil, but was not of the least avail. Post-mortem examination revealed no noteworthy appearance except slight congestion of the small intestine. The natural query now is: What are the chemical constituents of sorrel, and was this growth really at fault, or only made a scapegoat for ignorance?

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., DECEMBER 10th, 1896.

Editorial.

COCAINE ADDICTION.

We have before, in these columns, had occasion to refer to the evils and dangers of cocaine addiction, but a recent editorial in the *Omaha Clinic* throws some new light upon this subject. It appears that certain catarrh compounds in the market depend for their heralded virtues solely upon the proportion of contained cocaine, and the result is that many cocaine *habitués* have been made. The *Clinic* particularly cites the case of a mere lad, fourteen years of age, who had been advised to employ a certain proprietary remedy for catarrh, with the result that he was soon using two or three boxes per week, which exhausted all his meagre salary. "Then he began to pilfer, and finally forged his employer's name in order to secure a supply.—Result, one ruined youth, a dishonored name, a heartbroken mother." The *Clinic* further adds:

But what can be said of the individual who knowingly, yea maliciously, compounds a remedy and places it on the market containing such proportions of cocaine, knowing, as he must, that the drug has no real curative effect, that the relief obtained can be only temporary, and that the after-results, aside from the formation of a habit, cannot be otherwise than injurious and directly antagonistic to subsequent permanent relief by any legitimate professional means?

This certainly is one of the crimes of society as well as of medicine. The so-called "freedom" which has been made a fetich in the United States is, and has been, inimical to all the best interests of society. The pro-

proprietary and patent medicine trade is responsible for a multitude of evils. Drugs containing excessive proportions of morphine, of cantharides and of cocaine are widely heralded as "sure cures" for a multitude of maladies. Laws are enacted for the protection of the public against poisons *per se*, but when these same noxious agents are disguised in the form of panaceas they are privileged to be sold by any and all, in spite of the notorious fact their sole aim is to put money in the pockets of their promoters. The interests of life and health are as nothing compared with this "freedom." It is now but a few years since, when the question came up in the halls of Congress of withdrawing the tax upon patent medicines, an eminent senator from the State of Michigan lauded these nostrums to the skies as the pioneers of medical science, and essential to the welfare and health of the backwoodsman—and the Lord knows what balderdash besides. This was an intelligent and educated man, and no one knew better than he the evils of the patent-medicine traffic; and yet, for a political or *some other reason*, he was willing and anxious that the greatest freedom should be accorded in poisoning and drugging an ignorant public.

Recently sad cases of cocaine addiction have come under our notice as the result of using catarrh powders containing cocaine or solutions of this fell drug for the relief of maladies affecting the nasal and respiratory passages, particularly that popularly known as "hay-fever." One most estimable medical gentlemen has twice entered a retreat in order to be relieved of cocaine addiction, and yet the temptation was so great he found himself unable to resist the snare of this most potent and seductive drug.

It is the opinion of Norman Kerr—who is probably the greatest expert the world has known as regards narcotic habit—that cocaine is as much more dangerous and enthralling than morphine, as the latter drug is more dangerous and enthralling than alcohol; and experience bears out this assertion.

Certainly it is time that all legislatures took cognizance of those nostrums that threaten the health and sanity of the human race. It is time non-galenical preparations intended for direct use by the laity and placed upon the market should be analyzed, their con-

tents and adulterations made public, and those that are dangerous forbidden to be marketed. In fact, the poison law should apply to all nostrums and to all purported remedies, as well as foods, that are intended or sold for direct domestic consumption. Crusades against the alcohol habit and other forms of debauchery are common, but the crime of self-medication and the free selling of noxious proprietary and patent remedies is sedulously ignored, and thus far attempts to regulate the sale of the latter have been met with the cry that any restriction infringes upon the personal freedom of proprietor and customer—the former to poison, the latter to be poisoned for a heavy consideration; also by "lobbying" and the monetary and other methods that are a blot upon politics.—Life and health are minor considerations, so long as the harpies can accumulate fortunes. The safeguards that are thrown around opium, arsenic and strychnine should be thrown equally around cocaine, cantharides, antipyrin, acetanilid, kola, and a host of other preparations that are directly dangerous when not employed through the advice of a skilled physician.

The rapid increase in the number of insane, of idiot children, of the deaf and dumb, and of imbeciles generally, in public asylums and retreats, is in large measure to be attributed directly to the enormous consumption of drugs that not only tend to destroy mentality and morality, but carry with them a train of evils to future generations—to children and children's children, even to the third and fourth degree.

And finally, it is the duty of every medical man and every honest journalist to take up this matter in the interests of good law and of morality, though many of them are at the present moment "as deep in the mud" as the proprietary-medicine manufacturer is "in the mire," and all for a trifle of filthy lucre. Physicians by the very nature of their profession are bound to lend their best efforts toward creating a healthier sentiment, both among druggists and the public; but inasmuch as medicine to a great degree is a sealed book to the laity, the hope of educating the masses without invoking the higher aid of the law is entirely futile. To quote again from the *Omaha Clinic*:

Can anything more despicable be imagined than that a human being endowed with a certain business capacity should allow his sordid desire for gain to so far blunt or completely obtund a sense of right, justice, happiness, honor, sympathy, and propriety, as to suborn all his energies and efforts to the advancement and sale of an article certainly terrible in its results?

NEW REMEDY FOR CANCER.

Some time since a paper appeared in *Vratch*—a Russian medical journal—from the pen of Doctor Denisenko, who recommended the sap of *Chelidonium majus* as a remedy in the treatment of malignant growths. This plant, which is widely known as "wartwort" or "garden celandine," is much used in eastern Europe as a domestic remedy for a number of maladies. Doctor Denisenko claims to have given it an extended trial as an external application, and with such satisfaction that he ventured to employ it internally; and as a result, after prolonged use in very small continuous doses, he asserts it "appeared to cause the neoplasms to be spontaneously absorbed."

Later, in the same journal, appeared a second paper, in which the histories of seven cases of carcinoma were given, four being of such character as to render surgical operation dangerous or of no utility, three being malignant growths of the œsophagus or of the stomach. The first four cases are illustrated by cuts showing the effect of the remedy from time to time, and the evidence afforded, if genuine, must be considered most astounding. The assertion is made that the growths in the first four cases, under this medicament, entirely disappeared; also that the patient suffering from cancer of the œsophagus has so much improved that the growth is scarcely to be detected, and, whereas he formerly could swallow only liquid food, he now ingests chopped meat, bread, and hard-boiled eggs, with impunity. Again, in the cases of cancer of the stomach the swellings have practically disappeared, appetite returned, and health generally improved.

Supposing the foregoing report to be true, it is yet to be ascertained whether or not the growths will reappear. Another matter to be taken into consideration is the fact that chelidonium contains two highly poisonous

alkaloids, *chelidonine* and *sanguipyrine*, the effects of which upon the human economy are scarcely at all known, and it remains to be seen whether the employing of this drug, even in small doses, may not ultimately tend to results equally or more unfortunate than those brought about by malignant growths. It need hardly be added that this drug must necessarily be a most dangerous remedy in the hands of the laity or the charlatan, for cases of chelidonium poisoning are by no means uncommon in domestic medicine, where the drug has been employed *only as an external application!*

We shall await with considerable interest the further results of the employment of garden celandine for the extirpation of malignant growths, and hope to secure more definite information at an early date.

AN INTERNATIONAL SCIENTIFIC ASSOCIATION.

Our contemporaries, *Science* and *Nature*, alike suggest the formation of an International Association for the Advancement of Science, inasmuch as recent events go to show that members of the various national associations are ready and willing to co-operate cordially. The British Association will meet in Toronto next year, and the American Association, after meeting at Detroit, will adjourn to the former city to welcome their trans-Atlantic brethren. Another evidence of the existence of community feeling among scientists is afforded by the decision of the British Association to meet at Dover in 1899, in order to facilitate an interchange of visits between its members and those of the French Association, which is to meet at Boulogne about the same date. These signs of fellowship indicate that the time has come when an International Congress for the Advancement of Science may be profitably considered. Among the many subjects which would benefit by international co-operation are Bibliography, Nomenclature, Definition of Units, Exploration, and Science Teaching. The amalgamation would also impress the collective weight of science upon the outside world, and thus be able to claim more adequate support and recognition for scientific progress. The suggestion that the

first gathering of the proposed International Congress be called to assemble in Paris in the first year of the twentieth century is a good one, and we hope it will fully materialize.

In considering the question of an amalgamation of all Associations for the Advancement of Science, there is perhaps the drawback that all great International Congresses are apt to be too unwieldy to be satisfactorily managed and attain the best results; but this is a matter that can be trusted to right itself with time—the day must come when a censorship will be established over subjects and papers, and those who seek notoriety only will be relegated to their proper place in the background. The “Babel of tongues” which *science* deprecates would be a comparatively small matter, since it is probable every national section would desire to issue its own transactions and reports, when all papers would be translated into the vernacular.

DEFINITE IDENTIFICATION.

The identification of individuals is the subject of a paper by Colonel Charles H. Alden, Assistant Surgeon-General of the United States Army, in the last issue of the *American Anthropologist*. Therein is described the method employed at the Surgeon-General's office, which consists, after invoking racial classification, of the registration of scars and other marks, in series, on outline diagrams representing the anterior and posterior aspects of nude figures. All marks on subjects under five feet seven inches are classified together; all above this figure form another series.

Scars, Doctor Alden thinks, afford the most important evidence when classified according to location, the head of course receiving prominence. Next in order are tattoo marks, which are similarly classified according to region, and subdivided by height, etc.

This system has proved especially adapted to army use, where the object is the detection of deserters and prevention of repeated enlistments. Certainly its simplicity and fertility of application are to be commended. No apparatus, no camera, and no elaborate personal descriptions are required. The Bertillon system, on the contrary, in each

instance requires far more time than can ordinarily be given for the examination of a recruit, and there is the difficulty of transport of apparatus. Doctor Alden assures us that during six years the system which he outlines has proved most satisfactory—which is, of course, the best proof of its value. In addition is the fact that this testimony, emanating from such a high source, is evidence that the method has been given more careful investigation and trial than could be had at almost any other hands.

EDITORIAL NOTES.

Passing of the Reflex.—

Doctor Dana asserts the conception of the reflex was not the legitimate outcome of careful scientific researches, and that to-day in practical medicine and surgery it has become in great measure the expression of a dangerous misconception and misapplied sentiment. Also that there are no reflex constitutional neuroses; that chorea, functional spasms, convulsive tic, epilepsy, paralysis agitans, and even true hysteria, are never dependent upon a remote local irritation. That, although there may be reflex pains, reflex spasms, reflex mental disturbances, reflex symptoms many and apparent, these are not reflex diseases in any true and serious sense of the word.

We are glad some one has had the courage to attack this fetic.

A Trifle Far-fetched.—

The *Medical Press and Circular* is responsible for the following:

The farmers of Denmark have taken advantage of the developments of modern bacteriology in the manufacture of butter. The Danish bacteriologists having determined the particular microbes by which the various flavors are developed in butter, the farmer is now able, by sterilizing his milk, and then planting that particular species of microbe by which the desired flavor is produced, to furnish a uniform quality of butter of any desired flavor. The dairymen of Denmark have by this means succeeded in obtaining almost complete control of the English market.

The same “yarn,” practically, has been going the rounds of the lay press, having been applied to almost every civilized country

on the face of the globe, including Japan. Our English contemporary will some day learn the sensational press has never aimed at either truth or accuracy.

Test for Nitrites.—

If a few fragments of cuprous oxide be added to a solution, in concentrated sulphuric acid, of material supposed to contain nitrites, the latter are dissolved with the formation of an intensely violet or purplish color—so says Sabatier, who adds: "All cuprous compounds, as well as cuproso-cupric derivatives, yield the same reaction, but cupric compounds do not." No color is produced by mercury or mercuric derivatives, or by salts of lead, silver, tin, manganese, cobalt, or nickel.

"Before and After."—

One of the most striking effects appears in one of our Pacific contemporaries, along with a case illustrated by two copies of photographs; the result in No. 2 is certainly most astonishing. In No. 1 the fair damsel's hair is plastered tight to her head, but in No. 2, presumably as the effect of the remedy, it has been coiled into a magnificent tower above the occiput, reaching well forward toward the forehead.

Great is illustration!

Dysmenorrhœa.—

Doctor Talley declares a mixture of caffeine, bromide, and tincture of gelsemium is of great value in the treatment of this malady. This is true when the trouble is of purely functional nature; but if due to mechanical obstruction, surgical interference is demanded. In either form, however, greater relief is to be had from the administration of the red apiol of Parke, Davis & Co., one or two capsules night and morning.

A Merited Honor.—

The degree of M.A.O. (Master of Obstetrics) *Honoris Causa* was recently conferred by the Royal University of Ireland upon Thomas More Madden, M.D.

Doctor Madden has a world-wide reputation as an obstetrician and author, and the conferring of this degree is not only well merited, but will reflect credit upon the University.

Items and News.

More Amenities.—

Truly this is a day of disillusionments—a time when shattered idols are more common than those in the odor of sanctity. Homer seems to nod more frequently than ever. The last issue of the *Canadian Practitioner* contained an appreciative, not to say flattering, review of a so-called *Metaphysical Magazine*, a periodical that is the organ of the most advanced faddists of Theosophy and Christian Science. The very number received with such favor by the *Practitioner* contains, among other choice pieces of verbose obfuscation, an article proving that the respiration "during a time when an evil emotion is dominant, contains volatile poisons which are expelled through the breath and are characteristic of these emotions." The sage investigator goes on to say that by applying chemical agents to the breath he can produce a precipitate and so detect these poisons, and that, "in the case of grief the color will be pinkish."

Ever since we read that review in the *Practitioner*, our breath has been of a beautiful pale pink at the thought of the game some one has played on the editor, and we quite expect him to display a bright scarlet flambeau for a week after discovering the trick by which his apparent endorsement has been secured for the maunderings of a lot of people gone queer over Esoteric Buddhism. —*The Canada Lancet*.

Strongly Put.—

If you were to take an eminently practical boy and school him in the superficial, sentimental, emotional and dependent habits of the average girl, with the ordinary attendants of a corset, tight and high-heeled shoes, indoor training, and insufficient clothing, and let him live on de-oxygenated air, with no other hope except to get married, and not allow him to purchase even as much as a railroad ticket for himself, never have a pocket in his clothes, spend hours daily curling his hair and preparing to spend a frivolous evening, he would develop into a veritable hysterical nonentity, capable of producing only his kind.—LUCINDA H. CARR, in *American Journal of Surgery and Gynecology*.

American Dentists in Germany.—

A dentist was arrested and fined in Berlin for displaying upon the door of his consulting-room a plate describing him as a Doctor of Dentistry, with a diploma granted by an

American dental college. America is undoubtedly a great country for manufactured articles of a kind, but so far, at all events, as dentists are concerned, the latter must be "made in Germany" if they desire to practice their profession in the Fatherland.—*Medical Press and Circular*.

Why Quacks Prosper.—

The fact is that the United States are not yet sufficiently civilized for the daily newspapers to have a real appreciation of what the profession of medicine does know and does not know. In other words, the average reporter and editor still believes in clairvoyants, the seventh son of the seventh son, the bone-setter, and the healer who neglects the barber and cultivates the sublime art of curing disease which does not exist.—*The Post-Graduate*.

Literary Degrees.—

It is easier for an American to get the degree of Ph.D. at most of the German universities than at any of the best American institutions. In Germany it is the lowest degree given, scarcely equivalent to our A.M. Yet many who care little for their A.M. are proud to flourish a Ph.D. from a German institution.—*Medical Times*.

Venereal Disease a Sufficient Cause for Divorce.—

The Paris Court of Appeals recently decided that the fact of marrying before being cured of a venereal disease, and knowingly communicating it to the other party in marriage, is sufficient cause alone to allow a divorce.—*La Semaine Médicale*.

Leprosy in South Africa.—

This malady is becoming so prevalent in the Transvaal that the Government is called upon to make special provision to meet it, and has therefore set to work to build a large leper hospital in Pretoria.—*British Medical Journal*.

Remember.—

Hæmorrhage at or near the menopause is always of serious pathological import, and should lead to careful and searching examination for cause.—*Summary*.

Unusually True.—

Teacher: "Tommy, what is meant by 'nutritious food?'"

Tommy: "Something to eat that ain't got no taste to it."

Book Reviews.

SONS AND FATHERS. By Harry Stillwell Edwards. Cloth; 12mo; pp. 349. Price, \$1.25. Rand, McNally & Co., Chicago.

The author is well known as the originator of certain quaint Southern stories that have appeared at intervals in the *Century Magazine*, such as "The Two Runaways," "Minc," "Sister Todhunter's Heart," etc., none of which, however, gave any clew to the intense dramatic power that has first come to view in this new work.

"Sons and Fathers" was the winner, over 815 competitors, of the \$10,000 offered by the *Chicago Record* as a prize in a competition for "stories of mystery," and it deals incidentally with many scientific problems, some of which are still unanswered and others but half revealed. Even medical science has been invoked, and for a wonder the writer has not been guilty of those solecisms that invariably abound when the laity attempt to deal with matters of which they have no practical knowledge—though there is a partial exception, perhaps, in attributing a too rapid anæsthetic action to chloroform.

We cannot venture to outline the plot—it would be an act of treachery to reveal a single line of it; but it is one of the most enthralling of any work of American setting that has appeared within a decade. Therein are depicted the vicissitudes that surround those in the South who are suspected of even the faintest taint of African blood in their veins, even though the suspicion be unfounded—as it was in this case, though the hero himself was almost to the last in doubt. Intimate glimpses of Southern life, political and domestic, are scattered throughout the volume, the only weak spot, perhaps, being lack of a reason for the action of one woman, the sister-in-law of the heroine, whose spite and folly set in train a series of circumstances and crimes that make the life of the hero miserable almost beyond measure.

The work is one that will enlist the interest and sympathies of every one; it is more realistic and dramatic than Uncle Tom's Cabin, and far truer to life; it is one of the few works that, once begun, are difficult to lay down until the final page has been reached. To medical men, especially alienists, and others interested in the problems of psychology and heredity, the volume will prove unusually interesting.

THE GOSPEL OF BUDDHA. By Doctor Paul Carus. Cloth; 12mo; pp. 300. Price, \$1.00. The Open Court Publishing Co., Chicago.

The contents of this volume are derived from the old records, the most important passages being literally copied from translations of the original text, while others are freely rendered in order to make them intelligible to readers; some have been rearranged, others abbreviated.

There is a growing tendency to study the great religions of the world from a scientific standpoint, and Buddhism, particularly, is attracting attention, first, from the fact that it antedates and anticipated Christianity, and, second, because its followers have become zealous in a determination to regenerate and enlighten the Christian world. The presentation of Buddhistic doctrines, free from spurious and apochryphal admixtures and in a lucid manner, has long been a desideratum, and this work Doctor Carus has successfully accomplished—so much so, indeed, that this "gospel" has been accepted in the far East as a textbook in schools and other institutions, and has received nothing but praise from Buddhistic authorities; it has even been translated back into several Oriental tongues.

THE PHYSICIAN'S PERFECT CALL LIST AND RECORD. By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 16mo; pp. 200. Price, \$1.50. George S. Davis, Detroit.

The fact this work has reached its eleventh edition, with a constantly increasing sale, is evidence of both its popularity and great usefulness among medical men. It is of size and shape that render down at the top or corners, as most books of this it convenient for the pocket, and it will not break kind are especially prone to do.

It is universal in application—that is, it is equally available for any year, or any week or month in the year. It is free from advertisements of all kinds, the insides of covers and colored fly-leaves being taken up with such information as the medical man is apt to desire to consult hurriedly—thus the Obstetric Table (in two colors), Key to Metric Prescription Writing, Differential Diagnosis of Eruptive Fevers, Emergencies, and Poisons and Antidotes, are available upon the instant.

The Posological Information, and Tables of Doses, are entirely new, having been rewritten and brought up to October 1st, 1896.

As a whole, the work is the simplest, most complete, and most convenient ever issued, a marked improvement upon call lists generally, and the price (\$1.50) is so reasonable that no medical man can afford to be without so important an aid to the keeping of professional and other accounts and records.

DISEASES OF THE NOSE AND THROAT. By Francke Huntington Bosworth. Cloth; 8vo; pp. 814. Wm. Wood & Co., New York.

Doctor Bosworth's former work in two volumes is well known, consequently the present new edition requires no introduction to the profession, particularly as the author's skill in this branch of medicine and surgery and well known facility as a writer are beyond criticism. The present volume has been entirely rewritten from the two-volume edition, and condensed by the omission of cases and other matters not of vital interest to the stu-

dent and busy practitioner. It has likewise been brought up to date in every particular. Profusely illustrated with nearly two hundred engravings and seven full-page chromo-lithographic plates, it offers to the practitioner or to the student unequalled facilities for gathering information upon the subjects of which it treats.

PATHOLOGICAL ANATOMY AND HISTOLOGY. By Francis Delafield, M.D., LL.D., and T. Mitchell Prudden. Cloth; 8vo; pp. 846. William Wood & Co., New York.

It is a little more than three years since the fourth edition of this work appeared, but the numerous advances in the science of pathology, notably in connection with the examination of the blood, have made necessary a new edition, and the occasion has been improved to bring the work thoroughly up to date in every department. Also a great many new and beautiful illustrations, for which this work has always been noted, have been added. It is a volume which no student or practitioner can afford to be without.

POST-MORTEM EXAMINATIONS IN MEDICO-LEGAL AND ORDINARY CASES. By J. Jackson Clarke, M.B., F.R.C.S. Cloth; 24mo; pp. 78. Price, 90 cents. Longmans, Green & Co., London, New York, and Bombay.

This most convenient little work presents two especial features: One, the description of a simple system of antiseptic precautions, which will be found capable of removing every danger from post-mortem work; the other, the addition of special sections on the legal aspects of post-mortems, and on the granting of certificates of death. Such a convenient and thorough little hand-book has long been needed. It is excellently and practically illustrated.

REVERIES OF A BACHELOR. By Ik Marvel. Paper; 32mo; pp. 234. Price, 25 cents. F. Tennyson Neeley, Chicago and New York.

This is one of the American classics. It is neither more or less than what it purports to be, a collection of floating reveries which from time to time have drifted across the author's brain. It must be read to be appreciated, and once perused will scarcely be laid down until it is perused again and again.

THE LIVING AGE. Price, \$6.00 per year. Littell & Co., Boston.

The value of this old eclectic weekly to every American reader as affording the best and freshest compilation from the field of British periodical literature, has been constantly recognized since its founding in 1844. In the original prospectus of this magazine it was stated:

"We hope that by 'winnowing the wheat from the chaff,' by providing abundantly for the imagination, and by a large collection of biography, voyages and travels, history and more solid matter, to

produce a work which shall be popular, at the same time aspiring to raise the standard of public taste."

How well the publishers have adhered to this principle is evidenced by the success the *Living Age* has attained. And now, in pursuance of the same general plan and a desire to give the best the world can offer, the scope of the journal has been enlarged so as to embrace translations of noteworthy articles from the leading publications of France, Germany, Spain, Italy, and other Continental countries, many of which contain matters of great interest and value to the American reader, and yet which, for obvious reasons, are absolutely beyond his reach but for the timely help of this delightful medium. In addition a monthly supplement will be given, containing the departments devoted to American literature—writings from magazines, writings from new books, and a list of books of the month. This cannot fail to be of great interest and profit to subscribers, and will add about 300 pages annually to the magazine, with no addition to its present price, which is certainly within the reach of all, having a year ago been reduced from \$8 to \$6 per annum.

THE SCIENTIFIC AMERICAN. Price, 10 cents; \$3.00 per year. Munn & Co., New York.

This most popular scientific weekly is now in its fifty-first year. Every number contains sixteen large pages, beautifully printed, elegantly illustrated, and presents in popular style a descriptive record of the most novel, interesting and important advances in all departments of science and the useful arts. The most important engineering works, mechanisms and manufactures, at home and abroad, are represented and described, and every issue contains abundant, fresh, and interesting subjects for discussion, thought, or experiment. It tends to improve the mind; encourages to self-exertion, activity, and development; furnishes hundreds of useful suggestions for business, and for simple, light and profitable occupations; promotes industry, progress, thrift, and intelligence in every community where it circulates. *The Scientific American* should have a place in every dwelling, shop, office, school, and library. Physicians, and indeed people in every walk of life, will derive supreme satisfaction and benefit from a regular perusal of this unrivaled periodical. As an instructor for the young it is of peculiar advantage. Try it. It will benefit yourself, and your boys it will render more manly and self-reliant.

THE YOUTH'S COMPANION. Price, \$1.75 per year. Perry Mason & Co., Boston.

It is impossible in the limited space at our disposal to do anything like justice to the interesting announcements which this journal makes for the ensuing year. It is the ideal family paper—clean, interesting, educational. Not only are some of the most delightful story-writers permanent contributors to it, but many of the most eminent statesmen, jurists and scientists are engaged year by year. Indeed, royalty and statecraft are represented in each volume; besides the foremost Army and Naval officers, astronomers and scientists of all degrees are numbered among the contributors, who also represent every civilized nationality on the globe.

The publishers of the *Youth's Companion* make the following offer to all who at once forward \$1.75 and enroll themselves as subscribers for 1897, viz.:

They will send free a handsome four-page calendar for 1897 (7 by 10 inches), lithographed in nine colors, the retail price of which is fifty cents; also the *Companion* will be sent for the remainder of 1896 free of charge, including the Thanksgiving, Christmas and New Year's double numbers.

ST. NICHOLAS. Price, 25 cents; \$3.00 a year. The Century Co., New York.

The Christmas number contains "Christmas in Bethlehem," by Edwin S. Wallace; "A Snow-bound Christmas," by Francis C. Burr; "Master Skylark" (iv-vii), by John Bennett; "A New Mother Goose Jingle," by Dorothy G. Rice; "The Last Three Soldiers" (iv-v), by W. H. Shelton; "A Letter from Doctor Holmes," by Isabella G. Murdoch; "The Pumpkin Dwarf," by Frank M. Bicknell; "Santa Claus's Pony," by Ella F. Mosby; "The True Story of Marco Polo" (xiv), by Noah Brooks; "June's Garden" (iii-iv), by Marion Hill; "The Voyage of the 'Northern Light,'" by J. T. Trowbridge; "A Boy I Knew" (i), by Laurence Hutton; "The Little Bear's Story," by C. F. Holder; "A Christmas Goblin" (poem), by Susan H. Swett. The usual poetry and departments complete the number.

THE COSMOPOLITAN. Price, 10 cents; \$1.00 per year. The Cosmopolitan Publishing Co., Irvington, N. Y.

The December issue opens with Theodore Tracy's illustrated article on "Meccari's Historic Frescoes;" the story of "The Head-end Collision" is told by A. C. Rogers; Colonel Tillman sketches the "Ten Years' Captivity of Slatin Pasha;" the "Ancient Silver Mines of Zacetas" and "The Gold Fields of South Africa" are full of interesting information. Percival Pollard writes of "The Artist and His Model;" T. C. Crawford contributes a short story entitled "Modern Fairy Tale," illustrated by B. W. Clinedinst. A number of poems and tales make up a very acceptable Christmas number.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; \$5.00 per year. D. Appleton & Co., New York.

Contents for December: "Principles of Taxation" (iv), by D. A. Wells; "The Relations of Biology, Physiology, and Sociology," by Herbert Spencer; "Botanic Gardens," by D. T. Macdougall; "Animal Symbolism in Ecclesiastical Architecture," by Andrew D. White; "Two Scientific Congresses," by J. M. Baldwin; "The So-called California 'Diggers,'" by Mabel L. Miller; "Possession and Mediumship," by W. R. Newbold; "Idiot Savants," by F. Peterson; "Igneous Intrusions and Volcanoes," by I. C. Russell.

THE CENTURY. Price, 35 cents; \$4.00 per year. The Century Co., New York.

The Christmas number contains: "A Group of American Girls Early in the Century," by Helen E. Smith; "A Rose of Yesterday" (ii), by F. M. Crawford; "Hugh Wynne, Free Quaker" (ii), by S. W. Mitchell; "Virginie Demont-Breton," by Lee Bacon; "Campaigning with Grant" (ii), by Horace Porter; "Sleep and Grief," by C. B. Going; "Breaking His Own Will," by E. E. Seelye; "In Bethlehem of Judea," by R. W. Gilder; "The Christmas

Kalends of Provence," by T. A. Janvier; "One Man who was Content," by Mrs. S. Van Rensselaer; "Abashed," by C. W. Lake; and "For Value Received," by Margaret C. Graham.

OUTING. Price, 25 cents; \$3.00 per year. The Outing Publishing Company, New York.

The December issue is one of the best that we have ever seen. "The Pectoral Cross," a powerful story of the stage, is by Justine Ingersoll; "Zinto" is by H. F. Munn; "Hares and Hare Hunting," by Ed. W. Sandys; "At the Top of Europe," by E. M. Allaire; "American Amateur Athletics of '96," by W. B. Curtis; "Golf in America to Date," by Price Collier; "Racing Schooners," by R. B. Burchard; "Hunting the Mule Deer," by Rollin Smith; "A Winter Day with the Ducks," by James R. Benton. There are also several other minor sketches.

THE CANADIAN MAGAZINE. Price, 25 cents; \$2.50 per year. Ontario Publishing Co., Toronto.

The December number opens with an article by Gordon Waldron, entitled "Canadian Poetry." Other articles are: "A Civil War," by John McCrae; "John Anderson, My Jo," by Jetna; "A Stygian Comedy," by Kathleen F. M. Sullivan; "Kate Carnegie" (XXI), by Ian Maclaren; "Cabot and Other Western Explorers," by C. H. McIntosh; "The Cabot Celebration," by Joseph Pope; "Sunday Rest a Civil Right," by John Charlton; and "Canada and the Venezuelan Settlement," by G. T. Blackstock. There are the usual verse and departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; \$2.00 per year. The Art Trades Publishing and Printing Co., New York.

The Christmas number contains suggestions for "Some Simple Home-made Gifts," "Art Trades Supplement," "Two Modern Etchers and Their Work," "Holiday Books," "Embroideries for Home Decoration," "An Italian Renaissance," "The Art of the Metal-worker," by Mrs. Oliver Bell Bunce; "Christmas Shopping Notes," "Wood-carving for Amateurs," by W. Q. Tolman; "Leaves from the Editor's Scrap-book," "Some Good Christmas Gifts," etc.

THE PROFESSIONAL PHOTOGRAPHER. Price, 10 cents; \$1.00 per year. The Nesbitt Publishing Co., Limited, Buffalo, N. Y.

Contents for November: "Lippman's Method of Color Photography," "The Klein Studio," "Color Tones and Some Methods of After-treatment of Bromide Prints," "Dark Room Manipulations," "The Carbon Process," "Copying," "How to Take Stereoscopic Pictures with a Pocket Kodak," "Orthochromatic Photography," "A New Use for Negative Glasses," "Suggestions for Development for Pyro Users," "Platino-Sollio Prints," "Opaline Mounting."

MCCLURE'S MAGAZINE. Price, 10 cents; \$1.00 per year. The S. S. McClure Co., New York.

The Christmas number opens with an article by C. C. Adams entitled "The Farthest North." Other contributions are: "How Dr. Davidson Kept His Last Christmas," by Ian Maclaren; "In the First

Christmastide," by Harriet P. Spofford; "The Early Life of Ulysses Grant," by H. Garland; "Bread upon the Waters" and "Captains Courageous" (III), by Rudyard Kipling; "My Unwilling Neighbor," by F. R. Stockton; "Bethlehem," by S. S. McClure; Editorial Notes, etc.

THE NORTH AMERICAN REVIEW. Price, 50 cents; \$5.00 per year. North American Review Publishing Co., New York.

The principal articles in the December number are: "The Engineer in Naval Warfare," which is discussed by a number of naval officers; "Some Memories of Lincoln," by J. F. Wilson; "Duty of the Coming Administration," by J. H. Eckels; "A Problem of Aridity," by C. M. Harger; "Our Trade with South America," by T. C. Search; "Curfew for City Children," by Mrs. J. D. Townsend; "The Repeopling of Ireland," by G. H. Bassett.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

The December issue contains: "American Woman Harpists," by Frederic Reddall; "Bret Harte's 'Sue' on the Stage," by Beaumont Fletcher; "A Hard-Times Christmas," by Rupert Hughes; "Her Cobra Lover," by W. A. Fraser; "The Santa Claus of the Midland Railway," by C. H. New; "The Repentance of Amos Loveday," by Kenneth Lee; "A Scheme that Succeeded," by H. I. Horton; "To Forgive, Divine," by Mary F. Nixon. There are the usual departments.

THE ATLANTIC MONTHLY. Price, 35 cents; \$4.00 per year. Houghton, Mifflin & Co., Boston and New York.

Contents for December: "Social Classes in the Republic," E. L. Godkin; "Professor Child," G. L. Kittredge; "The Art of Public Improvement," Mary C. Robbins; "Landscapes with Figures," J. K. Paulding; "Cheerful Yesterdays" (II), T. W. Higginson; "The Last of the First," A. M. Ewell; "A Colony of the Unemployed," Josiah Flynt; "The Juggler" (II-III), Charles E. Craddock; "Thoreau," Bradford Torrey.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The Christmas number is very inviting with its handsome cover design. The opening article is devoted to "Sir John Millais," by Cosmo Monkhouse. The number is especially rich in fiction, contributed by T. R. Sullivan, Kenneth Grahame, Richard H. Davis, Agnes Repplier, Clinton Ross, W. H. Shelton, and Mrs. S. Van Rensselaer. "A Law Latin Love Story," by F. J. Stimson, is illustrated in novel style by Maurice Grieffenhagen.

ARCHITECTURE AND BUILDING. Price, 15 cents; \$6.00 per year. W. T. Comstock, New York.

Contents for December 5th: "Activity in Building for 1897," "Why the School Buildings are So Long in Erection," "Discussion of 'The Influence of Steel Construction and of Plate Glass on the Development of Modern Style,'" "Planning and Construction of High Office Buildings," "New Electric Light Plant for the Capitol," "Pendulum Clocks in High Buildings," Editorial Notes and Comments; and the usual departments.

Therapeutic Brevities.

Douches in Gynæcology.—With healthy genital organs, douching is not necessary during menstruation, pregnancy, or after coitus, but only external washing. Lukewarm douches should be given when a pessary is being worn in the vagina during menstruation. Hot douches (110°–120° F.) of iodine solution should be administered in amenorrhœa of lactation, atrophy, and premature climacteric (but not in that of young girls); in defective involution and chronic metritis; in exudations (cautiously in perimetritis); in chronic disease of the adnexa, alone or in conjunction with the massage treatment. They are very useful as a styptic in profuse menstruation, endometritis, myomata, and secondary uterine hæmorrhages, and are best given as a tannic-acid solution. Cold douches are occasionally valuable for the hæmorrhage of uterine cancer. Medicated douches may be administered for various vaginal and uterine diseases—bicarbonate of soda in “dry” catarrh (seborrhœa vaginæ); corrosive-sublimate solution (1 in 1000) in purulent catarrh, but only by the medical attendant himself. In wounds of the vagina, permanganate of potash, tannic acid or boric acid is good. In gonorrhœa, during the acute stage (urethritis and vulvitis), we may wash out with a weak solution of sulphate of zinc, but it should not be given as a douche. In acute inflammations of the adnexa no douches should be given. In malignant processes iodoform gauze is the best treatment.—*The Practitioner* (London).

Influence of Carbonic Acid on the Sexual Organs.—At a recent meeting of the German Society of Balneology, Doctor Schuster remarked: The irritation of the skin produced by bathing in water containing carbonic acid is manifested by a sensation of heat and prickling, with redness, especially pronounced in the region of the genitals. The irritation is propagated centripetally, and gives rise to modifications in the nervous and vascular systems. As the sexual centres are not very deeply situated, the excitation readily reaches both to the medullary centre (that of erection and ejaculation) and to the cerebellar centre (that of imagination). The medicinal use of carbonic acid is indicated, therefore, in all cases of sexual debility not dependent on some organic disease, such as tabes, nephritis, or diabetes; it is directly contra-indicated in spermatorrhœa and in the grave forms of paralytic impotence, but may be of great service in precocious senile impotence. The

use of carbonic acid in the form of baths, douches, etc., is indicated also in the anaphrodisia of women. It is of substantial benefit, too, in utero-ovarian neuralgia, in dysmenorrhœa, and in amenorrhœa.—*New York Medical Journal*.

Duboisine Poisoning.—Schneideman recently saw two instances of severe intoxication from the use of duboisine as a mydriatic, both in children, who, indeed (with women), are most susceptible to the drug. The strength of the solution was two grains to the ounce. In view of the liability to toxic effect in such patients, it is better to reduce the strength to one-half that mentioned, even at the risk of incomplete mydriasis in some cases, requiring instillation to be continued for several days. The portion of the drug which is responsible for this unpleasant action is not that fractional part which gains access to the anterior chamber and causes the desired paralysis of the accommodation or dilatation of the pupil, but that which is absorbed by the conjunctiva and lacrymal tract and is thus worse than wasted. A single small drop carefully applied to the upper or lower margin of the cornea is effective as a cycloplegic; momentary eversion of the lower eyelid offers an additional safeguard against absorption into the general circulation.—*American Journal of the Medical Sciences*.

Hot Water Enemas in Chronic Diarrhœa.—It is not necessary to have the injection act either antiseptically or as an evacuant, but as a sedative and a reducer of congestion, as the hot vaginal douche in gynæcological diseases. Only as much as may be comfortably retained—about three ounces—at first is to be introduced, increasing the dose later to twice that quantity. At first the temperature should be about 104° F., gradually raising to 109°; as the liquid cools in passing through the syringe, one should have it at about 103° to 107° in the basin. Introduce the rectal tube high up, and inject slowly; the patient should then remain quiet. Repeat the injections once or twice a day for as long as necessary. A diminution in frequency of the stools will soon become manifest, and they will assume a more normal form. This treatment is of service in ulcerative processes of the large intestine as well as in chronic diarrhœa of neuropathic origin.—*Le Semaine Médicale*.

Theobromine.—I have used theobromine for over two years, in more than two hundred cases, as a diuretic in heart and kidney

disease, and believe it to be superior to both caffeine and digitalis. The dose is seven and a half grains, which may be taken every two hours until seventy-five grains are taken as the daily dose. Occasionally it causes an intense headache, which may compel discontinuance of the drug, and more rarely excites nausea and vomiting. It should be classed with the functional diuretics which act without offending the renal epithelium; it is especially indicated in anasarca dependent on renal or cardiac disease. It is not toxic, has no cumulative effect, and after administration diuresis follows promptly, continuing from two to four days after suspension of the drug.—HUCHARD, in *Gazette des Hôpitaux*.

Gonorrhœa.—Unfortunately, this disease is seldom brought to the notice of medical men in time. Often the many quacks who infest the large cities have tried their hands at "a cure" first of all, and that too at great cost to the patient. If the case is seen within the first three or four days, excellent results are obtained by beginning with active purgation during the inflammatory stage, whereby the local inflammation is rendered less severe. As regards the urethra itself, one cannot depend on the injection of a strong solution of silver nitrate: two patients treated thus had their trouble very much aggravated. In all early cases the most successful local measure appears to be the application of dilute nitrate-of-mercury ointment, to which is added morphine (one grain to the ounce).—*Gailard's Medical Journal*.

Induction of Abortion.—The indications for inducing abortion are: Uncontrollable vomiting of pregnancy: Incarceration of the gravid uterus: Obstruction of the pelvic outlet by tumors or exudates: Progressive and pernicious anæmia: Grave chorea: Great contraction of the pelvis, with the conjugata vera below five centimeters: Pulmonary emphysema, with signs of degeneration of the heart: Nephritis, especially with eclampsia: Chronic heart disease: Other general diseases of the mother which would jeopardize her life at the time of delivery. A conjugata vera of six centimeters and advanced pulmonary tuberculosis should not be regarded as indications for abortion, as it is not just to sacrifice a future life for one that is "certainly lost."—JEFFE, in *Indian Medical Record*.

Metrorrhagia in Virgins.—If after long attention to hygiene and a course of suitable tonics, menorrhagia persists, interrupted by

occasional amenorrhœa, granular or fungous endometritis probably exists. This disease is yet more safely diagnosed when the patient has been perfectly healthy and quite free from anæmia before profuse menorrhagia appears, and equally free from evidence of diseased appendages after the local symptoms become marked. When the excessive menstruation causes debility, it is right to dilate and use the curette. A single application (immediately after the scraping) of cotton wool soaked in equal parts of water and chloride of zinc is sufficient. Repeated cauterizations may easily cause atresia.—*Lyon Médical*.

Turpentine for Burns.—Spirits of turpentine applied to a burn of either the first, second, or third degree will almost at once relieve the pain, and healing will take place very rapidly—much more so than by any other treatment that has come under my notice. After wrapping a thin layer of absorbent cotton over the burn, I saturate it with the turpentine, and then bandage. The common commercial article is the one I use, as it is generally found in every house. Being volatile, it evaporates, and it is therefore necessary to keep the cotton moistened with it. When there are large blebs, I open them on the second or third day. It is best to keep the spirit off the healthy skin if possible, as sometimes pain is produced by its action.—MCINNIS, in *Medical Record*.

Strangulated Inguinal Hernia.—Hypodermatic injection of a quarter of a grain of a morphine salt, into the tissues immediately over the hernial tumor, frequently prepares the way to the successful use of taxis. A very efficient aid to the morphine is an ice poultice applied over the tumor. I have seen success achieved from these measures in two cases that resisted taxis until treated as above. Several years ago I succeeded easily in reducing a recent strangulated inguinal hernia, a very acute case, that had resisted other measures of treatment, including the taxis, by a hypodermatic injection of thirty minims of tincture of gelsemium and lobelia; the hernia was quickly reduced by taxis.—JOSEPH ADOLPHUS, in *Georgia Eclectic Medical Journal*.

Inhalation of Oxygen in Splenic Anæmia.—A patient under Koester's care at Gothenburg, suffering from pseudo-leukæmia, was rapidly becoming worse under arsenic and quinine. Dyspnœa being the most distressing symptom, oxygen was tried. After the

first inhalation, in which only eight pints of gas were used, the dyspnoea improved considerably, and in a few days it disappeared entirely. The inhalations were continued daily, eight pints being consumed each time, and under their influence the spleen diminished in size, the number of red corpuscles increased steadily, and at the end of a month the patient was able to leave the hospital in good health.—*Australasian Medical Gazette*.

Blisters.—There have been many protests against Huchard's sweeping denunciation of blisters. Matthieu asserts that in hydrarthrosis a cantharides blister is invaluable, and he also uses this application in gastralgia, on a space the size of a five-franc piece. Adrian thinks that if the substance be applied in the form of chloroform solution, with a little squill, no bad results will follow, such as may be attributed to the use of plasters that leave some of the irritant on the skin. In veterinary practice the blister is of the greatest service. All seem to agree that it is worse than useless in broncho-pneumonia, kidney and cardiac troubles, and for children and elderly persons.—*Medical Bulletin*.

Mercury Perchlorate.—This is made by saturating perchloric acid with mercuric oxide, and evaporating, when the salt will crystallize out; the crystals appear as right-angled prisms, which, while extremely hygroscopic, are nevertheless almost insoluble in water; they melt at 34°C ., and decompose in so doing. Partial decomposition also takes place on solution in water, yielding free acid and a basic perchlorate, $\text{Hg}_3\text{O}_2(\text{ClO}_4)_2$, the latter appearing as a white amorphous substance. The mother liquor, after the removal of the basic perchlorate, on being evaporated at a temperature at 150°C . yields $\text{Hg}(\text{ClO}_4)_2 + 2\text{HgO}$.—CHIKASHIGE.

Treatment of Warts.—Simple cutting off or severe cauterization of warts never prevents their return, but the trouble may be readily relieved by internal medication in most instances. Good results have been obtained by taking ten drops of tincture iodine thrice daily, but as a rule the best effects accrue from Fowler's solution, two drops thrice daily (in children, half a drop thrice daily), slightly increasing the dose each week. The warts crumble to pieces and disappear, especially when washing and drying the hands, so that the skin looks normal after two or three weeks.—*Medical Herald*.

Guarana in Diarrhoea.—At a recent meeting of the New York Pædological Society, Doctor Land detailed a case of a girl eight years old, who was subject to frequent attacks of loose movements. When first seen she had been suffering three or four days, and had ingested enough of domestic and proprietary remedies to thoroughly complicate the case. After giving dulcamara, veratrum album, arsenic, and phosphoric acid, without benefit, the stools were observed to be bloody, with bright green flakes intermixed, when *Paullinia sorbilis* was prescribed. Marked and immediate improvement followed, and the patient was soon discharged cured.—*Medical Century*.

Dangers of Chromic Acid.—Being a convenient remedy, rapid in action and easy of application, chromic oxide has been extensively employed in the local treatment of hypertrophic rhinitis. The one objection urged against it has been the difficulty in regulating the extent of the caustic effects; nevertheless, headache and nausea frequently follow its intra-nasal application, and sometimes more serious results, such as albuminuria and acute nephritis. The absorption is not nearly so marked in the tongue and tonsils, hence it may be used safely on these parts.—*North-western Lancet*.

Instant Relief of After-pains.—In many cases a nice warm meal is better than any medicine; still, where the pains are exhaustingly severe, we may turn to amyl nitrite. This potent drug is a very efficient controller of after-pains, and, used cautiously, no harm need be apprehended from it. A neat way of using it is to saturate a small piece of tissue paper with five or six drops, stuff this into a two-drachm vial, and request the patient to draw the cork and inhale the odor when she feels the pain coming on. It acts with magical celerity.—*American Journal of Obstetrics*.

Tinea Capitis.—Some of the most obstinate cases of ringworm of the scalp can be effectually relieved by means of oleate of copper, which, however, is best made extemporaneously. First make a solution of pure Castile soap. Next prepare a saturated solution of copper sulphate in pure water. Add the latter carefully to the soap, when a precipitate of a green color falls—this is the oleate of copper. The precipitate must now be washed through several waters to remove every trace of sulphate; then collect.—JOSEPH ADOLPHUS, in *Eclectic Medical Journal*.

Staphysagria.—The one thing I prize it most for is night sweats. I have used it for six years, and it never disappointed me. I have given it to patients bordering on consumption. Put two or three drops in two ounces of water, and give a teaspoonful every two hours. If it makes the case worse, you may know you have the right remedy, but your dose is too large. Dilute it more, or lengthen the interval between the doses. I say two ounces, because I think that will be all that will be needed.—BIBBY, in *Medical Gleaner*.

Creosote in Gonorrhœa.—Fifty-eight male cases of acute gonorrhœa were successfully treated with injections of a two- to ten-per-mille emulsion of creosote. The discharge quickly decreased, became mucoid, and then ceased altogether. The patients recovered more rapidly than under the ordinary methods of treatment; complications developed but rarely, and no relapses occurred. In addition, creosote seemed to exercise an anæsthetic action on the urethral mucous membrane.—*Meditzinskoie Obozrenie*.

Typhoid Fever.—Of eight cases treated by the Woodbridge method, only one continued over ten or fourteen days. I was governed more by results than by directions given with the formula. I have always endeavored to secure six large, mushy stools in the first twenty-four hours, and thereafter to keep the bowels acting freely, and when I have succeeded in doing this my patients have never been delirious; the tongue remains moist, they sleep well, and convalescence comes on in two weeks.—DOCTOR MCADOO, in *Medical World*.

Persistent Hiccough.—Hiccough appeared in a non-hysterical girl, dependent, probably, upon some gastric affection, and after persisting for three days was cured by spontaneous traction of the tongue. It was observed while this organ was being examined that the hiccoughs ceased, and consequently she was directed to protrude the member in a rhythmical manner. I can only explain the result on the theory of reflex action to the bulbar respiratory centre.—LAPINE, in *Le Bulletin Médical*.

Thyroid in Goitre.—Doctor S. Solis Cohen's experience is that, while thyroid preparations may benefit simple goitre, in Graves's disease, as a rule, the effect is *nil* or not good. He can give no definite rules for discrimina-

tion, although the effect of temperature upon the patient might be found of use; it is his present impression that those who are unduly susceptible to cold do well, those unduly susceptible to heat do badly, under treatment with thyroid.—*Philadelphia Polyclinic*.

Guaiaac Resin as a Purgative.—For two years I have used this drug as a purgative, as well as in the treatment of chronic rheumatism, sciatica, amygdalitis, dysmenorrhœa, etc. I give from forty-five to ninety grains three times daily. The purgative effect is very pronounced; and in one case the drug produced a violently itching eruption on the arms and legs, which disappeared with the cessation of the remedy.—DOCTOR MURRELL, in *Le Bulletin Médical*.

Neurasthenia.—An excellent nerve tonic and sedative is:

Quinine valerianate, 40 grains.
Iron subcarbonate, 80 grains.
Arsenous acid, 1 grain.
Strychnine sulphate, 1 grain.
Asafoetida, 120 grains.
Extract sumbul, 60 grains.

Make forty-eight capsules. Take one after each meal.

—*Virginia Medical Monthly*.

Congenital Constipation.—The main dietetic cause of infantile costiveness is a deficiency of fat in the food. Give the child from one-half to one tablespoonful of cream before feeding; if this is refused, sweeten with loaf sugar, and the child will soon become fond of it and accept all that is offered. By this plan congenital constipation will suddenly diminish, and the child be rendered comfortable.—*Medical World*.

Infantile Thirst.—Mother's milk does not quench an infant's thirst. Boiled water should be given freely and with regularity between the nursing periods.—*Medical Summary*.

[And boiled water, unless materially cooled, is almost as ineffective, being never wholly satisfactory.—ED.]

Hay Fever.—

Eucalyptus oil, 1 ounce.
Glycerin, 1 ounce.
Tincture opium, 2 drachms.
Distilled water, to make six ounces.

Use with atomizer three times daily.

—*Canada Lancet*.

Medical Progress.

MANAGEMENT OF FRACTURES.—In the treatment of fractures in children and young people, previous to ossification of cartilage, it is best to be careful about applying splints too tightly. Young children's bones heal quite readily when fractured, but there is danger of the normal active circulation being too much restrained by improperly applied splints. I prefer (taking a thigh as an instance) to wait a day or so before applying very restraining dressings, though extending weights are employed as early as safety will permit; but even then the limb will not often-times permit of more restraint than is afforded by a well prepared sand-bag, which is anchored to the limb with roller strips. Indeed, I have found Volkmann's sliding rest admirably adapted to treating fractures of the leg and thigh, if made with a solid foot-piece to which the foot is securely fastened with strips of adhesive plaster, which answer better than roller bandage. The weight must be enough to maintain coaptation of the fragments,—not too heavy, for then the muscles are overtaxed and their circulation impaired, as well as the energy of the trophic nerves. Attention must be given to the "lay" of the body. The upper fragment of the thigh bone may be found rolled outward; and while the fragments are in a distorted relation to each other the traumatic surface of the upper fragment may be rolled away from the corresponding surface of the lower, which is a frequent cause of distorted healing. I have seen the foot point in the wrong direction after the patient left the bed—an ill adjustment and deformity often observed to follow fractures of the leg also. In fracture of the thigh in the upper third, the tendency of the patient to turn his body so that the trochanter is rolled very much outward, while the leg and lower fragment of the femur are in line with the long axis of the body, is sure, if not counteracted, to cause an odious deformity.

At times, when the tibia and fibula are fractured at or above the middle, the upper fragment is strongly inclined to rise up above the lower and be drawn to one side. A sharp eye must be kept on these fragments during the healing process, and any malposition corrected at once. If undue excitement, of an inflammatory type, arises, it may be combated by the constant dropping of hot or cold water from a vessel in the bottom of which minute holes have been punched—the vessel suspended by a cord over the part on which the water drops. To prevent wetting

the bed and clothes, a rubber sheet is placed so as to catch the fluid and carry it off into any convenient receptacle. Often it is advisable to place a number of coarse sponges around the part to absorb the water. This method is most effectual in subduing acute inflammation, and may be applied to joints; but it requires constant attention, day and night, for perhaps thirty-six to forty-eight hours.

If spasm of the muscles occurs, treat it with a suspended bag of coarse shot—the bag being conical in shape, and containing ten to twenty-five pounds, according to age of patient; the small end should contain two or three pounds of fine shot, so that the textures shall not be hurt by the weight of coarse shot pressing on the skin; to the upper end of the bag, for suspending it, is securely fastened a stout string in two parts, a piece of stout elastic rubber tubing between equalizing the pressure and allowing the bag to be adjusted to the slight movements of the body; the upper end of the stout cord is attached to some fixed point overhead. The bag is so suspended that it hangs as a plumb over the limb, the small end resting on the femoral artery where it crosses the pubis; and the rubber "equalizer" takes up a pound or two of the weight, so that the bag will not lean over to either side, but maintain an upright position, with every little change of the position of the body. The pressure serves in a large degree to cut off the free passage of blood through the femoral artery; the muscles are less freely supplied with blood, become anæmic, and the spasms cease—for a muscle deprived of blood will not go into spasmodic action. This is the best way to stop spasm in fracture of the lower extremity, and in acute inflammation of the knee- and ankle-joints.—JOSEPH ADOLPHUS.

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FUNCTIONS OF THE STOMACH.—The great progress which has been made in the study of the chemical processes of digestion has not been attended by a corresponding progress in the therapeutics of indigestion, probably for three reasons: Because too much reliance has been placed upon pharmaceutical preparations as a means of correcting the morbid conditions of the stomach; because of insufficient attention paid to other functions of the stomach than those concerned with the chemical processes involved in the liquefaction of the food; and, because of neglect to consider the fact that proper liquefaction of food in the stomach requires the conversion of the starch by salivary di-

gestion as well as the solution of proteid matters by the gastric juice.

The conclusion seems just that the failure of proteid digestion in the stomach is much less likely to give rise to disordered digestion than the imperfect digestion of starch; it is probably for this reason that an exclusive meat diet, the milk diet, and other dietaries excluding starch, have won so much reputation in the treatment of chronic indigestion. Exclusively nitrogenous dietaries are most successful in cases of hyperpepsia, although these are the very cases in which, from a physiological standpoint, they would seem to be least indicated. It is in hyperpepsia, also, that the inconveniences arising from the indigestion of starch are most likely to occur. The fermentation of starch is an acid fermentation, and this may occur in connection with hyperpepsia; while the fermentation of proteids is hindered by the presence of an abundant quantity of hydrochloric acid in the stomach,—hence proteid fermentation is most frequent in hypopepsia, and acid fermentation in hyperpepsia.

Moritz summarizes a number of interesting points, as follows:

The digestion of animals—at least, dogs—may be maintained after the removal of the stomach, as is shown by the experiments of Czerny and Kaiser; this agrees with the observations of Noorden, Ewald, and others upon human beings, to the effect that good health may be maintained notwithstanding the existence of almost complete aepsia, the liquefaction of food in these cases depending upon the action of the saliva in converting the starch into dextrin and sugar; this change is often found to be complete in cases of aepsia:

Von Mering, Moritz and Brandl have shown that the stomach cannot be regarded as an organ for absorption, except perhaps in relation to alcoholic, toxic, and morbid substances:

The result of this fact is that the food substances of the stomach are kept in a diluted condition, and thus prepared for easy entrance into the intestines, and for ready absorption after their passage from the stomach into the lower portion of the digestive tract. Röhmnn has observed that concentrated solutions of sugar are not readily absorbed in the intestine, and that solutions having a strength of five per cent. are most readily absorbed:

Quincke has shown that equalization of temperature takes place readily in the stomach, and that the stomach is not much disturbed by considerable extremes in temperature, although this is not true of the intestine.

—*Health.*

CATHETERISM IN THE MALE.—In the *Centralblatt für Chirurgie*, Kollman deals with the hindrances to catheterism under normal conditions of the urethra, with an impediment in the way of urination. He refers them to the pubic symphysis, the middle layer of the perineal fascia, the sinus of the bulb, the prostatic sinus with the prostatic ring, and the trigonum vesicæ of Lieutaud, the most important of which, he says, is the sinus of the bulb. Among the circumstances which may lead to difficulty at this point is unusual sensitiveness, contact of the catheter giving rise to spasmodic constriction of the membranous portion of the urethra, constituting the spastic stricture of authors. A point of greater significance is the amplitude of the bulbous urethra, with an abundance of folds; and another is unusual distance between the sinus of the bulb and the entrance to the isthmus.

As regards the folds and pockets of the remainder of the anterior urethra, the author holds that importance is to be attributed only to the pocket on the upper wall of the fossa navicularis, often connected with a Morgagnian lacuna, and to the little rhaps of mucous membrane on the border of the Morgagnian crypts of the pars cavernosa. Occasionally the former is remarkably deep, so that the instrument may catch in it; the latter can hardly prove a hindrance unless a fine flexible instrument is used. The same is true of the excretory ducts of the acinous mucous glands, for in the normal urethra they are minute depressions invisible to the naked eye; under the influence of gonorrhœa, however, they may attain notable size, but never sufficient to constitute an obstacle to the rigid instrument.

Folds, pockets, and hollows of other sorts capable of hindering catheterism, are very exceptional. Grünfeld cites a case in which there was an opening in the posterior wall of the urethra, about three inches from the external meatus, that led to a submucous passage an inch deep into which a No. 15 catheter (Charrière's scale) could be inserted. Kollman had a like experience: on the lower wall of the urethra, in front of the bulb, was a blind passage about half an inch deep, opening anteriorly, which ran parallel with the urethra and readily admitted a No. 23 catheter. Such diverticula he presumes to be congenital. In one instance he observed a rudimentary pocket capable of constituting an impediment, which corresponded in situation to the outlets of Cowper's glands, and was also presumed to be congenital.

Kollman suggests that a urethroscopic examination should always begin at the glans

and end at the bulb, and not *vice versa*, as is the rule: thus would be avoided the overlooking of certain pockets in consequence of closure of their entrances.—*New York Medical Journal*.

CONTINUED FEVER, NOT TYPHOID.—Recently J. M. Da Costa related several cases of continued fever of long duration, differing thus from the ordinary type, which he had no hesitation in diagnosing as such to the exclusion of typhoid fever. Every physician of large experience meets with such cases. In his earlier practice, doubting perhaps his own ability, he manages them on a "probable diagnosis" of typhoid, and does, at least, no harm. In recent years such cases have been, doubtless, termed "influenza," just as in earlier years genuine cases of catarrhal fever were termed typhoid; yet they possess still less in common with influenza than with enteric fever. At present in Philadelphia, such cases are more common than at any former time. They are not influenza, not abortive typhoid, and while it is exceptional now as formerly to find cases of the long duration described by Da Costa, yet the tendency to long continuance in the absence of treatment is marked.

Cases differ in semeiology almost as much as patients differ in physiognomy; they are doubtless of varying ætiology and mechanism, yet an attempt at strict classification would be as futile as such refinement in diagnosis is unnecessary.

What is needed is to exclude the recognized specific infections (including malaria), and, this being done, to manage the case on general principles, as one of acute intoxication. The toxic agent may have been introduced from without, in food or water, or may have been generated within the body as a result of the chemic or biologic action of an agent from without, or through failure of physiologic function. The cause and process cannot always be traced. The treatment is to put the patient at rest, cleanse the *primæ viæ*, regulate the diet, promote comfort by sponging with cool or tepid aromatized water, and give drugs only in the presence of some definite indication. Usually such a definite indication is given by the character of the stools, and an insoluble "intestinal antiseptic" is of service. Sometimes a general tonic, such as strychnine or quinine in small doses, is called for. Alcohol is rarely needed. Coincident bronchitis may require the exhibition of a terebinthinate or an ammonium salt. However, as before noted, drugging is not urgent, and must be a matter of good judgment.—*Philadelphia Polyclinic*.

GESTURE IN DIAGNOSIS.—When a patient is asked to locate his pain he does so often by a motion of one or both hands, which not only indicates the locality but describes the character and distribution of the pain. If it is widely distributed over the whole chest he indicates the fact with a circular, rubbing motion of the palm of the hand. If due to serious inflammation it is described by drawing the hand away from the body and then, with the fingers close together or with the index finger, the rest being closed, approaching the seat of inflammation. In appendicitis he does not touch the skin at all, but simply holds the palm of his hand over the spot; with violent abdominal pains which are not inflammatory he will slap himself across the abdomen.

If a child refers to a persistent pain in the stomach and there is no tenderness on pressure, it indicates spinal difficulty; in hip-joint disease the pain will be referred to a point inside the knee.

In pains in the joint, the patient approaches the seat of trouble very cautiously with hand extended; if pains in the legs are sharp, his gesture is perfectly descriptive—an energetic downward motion, at the same time twisting the hand as though holding a corkscrew.—*Omaha Clinic*.

TUBERCLE OF THE GENITALS.—Eight cases illustrating this condition have been collected by Maas. In the first case the Fallopian tubes and ovaries were diseased, and infection probably originated in the umbilicus, as tuberculous granulations were detected running from it over the peritoneum. The second was an instance of tuberculous disease of the intestines; infection of the ovaries had occurred, the disease passing from the rectum. In the third, the genital disease was secondary to pulmonary phthisis. A fourth case was a true example of primary tubercle of the genitals. The fifth was identical in course and character with the second. The sixth was of special interest: a child, aged thirteen months, had vulvitis and tuberculous disease of the genitals; the mother was phthisical, and direct contamination must have taken place. In the seventh the father was tuberculous, and, as in the sixth, the disease began with vulvitis. The eighth patient had tuberculous pneumonia after measles, and a vaginal affection, also clearly tuberculous; the parents were healthy; the primary seat of disease remained uncertain; the tubercle may have been carried from the lungs to the vulva by the lymphatics, or more likely the child had touched the vulva with fingers soiled with sputum.—*Archiv für Gynäkologie*.

"BLAHEKROPE."—A pensioner of the Franco-Prussian war, fifty-three years of age, emaciated, with cyanotic lips, complained of stridulous breathing; a goitre the size of a small apple protruded from the right side of the thyroid, originating subster-nally. Whenever he would cough, there suddenly would protrude from the left side of the supra-sternal region, and apparently coming from under the sternum, an elastic swelling, varying in size from a child's to a man's fist; this was tense and elastic, while before the goitre had a flabby feel; it was somewhat tympanitic, but no sound was audible on auscultation. The circumference of the neck at the height of the seventh cervical vertebra in the undistended state was 37.5 centimeters, while on coughing it would increase to 42.5 centimeters. When pressed upon, or when all straining ceased, the tumor would disappear as suddenly as it came. The condition was a distensile goitre and not a tracheocele. Diagnostic of the former were the dull tympanitic sound on percussion, the great distention of the subcutaneous veins, the disappearance of the previously palpable goitre which in tracheocele would still present. The filling of the goitre with blood on coughing or straining compressed the trachea and gave rise to the stridor.—KARL FRANK, in *Münchener Medicinische Wochenschrift*.

CARDIAC SENSATIONS.—Cardiac sensations differ. Sometimes they manifest themselves in angina pectoris, at other times as stenocardia and cardiasthenia. They occur in valvular lesions, in disease of the myocardium, occasionally in nervous affections, and more frequently in Graves' disease. In the normal heart the regular and normally forcible contractions do not produce sensations; only after exercise or excitement are these perceived. Simple cardiac sensations may be the result of omission of the cardiac beat, or of increased force of the cardiac action due to hypertrophy of the left ventricle, as for instance in aortic incompetence; in the former the change in or absence of the stimulus, produced by the omission of the cardiac beat, is perceived. The perception of the im-moderate cardiac action in cardiac hypertrophy finds an analogue in the perception of the increased cardiac action as the result of exercise.—BECHER, in *Deutsche Medicinische Wochenschrift*.

VALUE OF DIPHTHERIA BACILLUS.—Henig concludes the diphtheria bacillus is of no diagnostic value, as it is present in many

cases where there is no diphtheria, and absent throughout the course in many cases followed by paralysis. In Königsberg it was present in only 55.5 per cent. of cases, and in the remainder streptococci, staphylococci and diplococci were found. This being the case, any treatment based on the specificity of the diphtheria bacillus must fall to the ground. The results of serum treatment as published by the Imperial Health Office are not very imposing. Since 1868 Henig has treated 1970 cases of diphtheria by lime-water and ice, with a mortality of only 3.06 per cent. In Egypt, also, where the mortality from the disease was from eighty to ninety per cent., since the introduction of this method it has fallen to three per cent.—*Cincinnati Lancet-Clinic*.

EPITHELIOMA.—This disease occurs usually after forty years of age, and attacks men more frequently than women. It has no accompanying lesions. The ulceration may be superficial or deep in extent; has an irregular surface with undermined or everted edge, and hard border; is waxy-looking, with surrounding infiltration. The discharge is yellowish, thin, serous, and offensive. There is no crusting except at the beginning; no scar is formed; it does not heal; and there is lancinating pain.—*The Factotum*.

FŒTAL HEART-BEAT AND SEX DETERMINATION.—The idea that from the frequency of the fœtal heart-beats the sex can be foretold is now refuted. This oft-quoted theory seems to have had its origin in a few observations made by Frankenhauser. More recent observations, however, including one thousand cases at full term, at the Boston Lying-in Hospital, prove the disparity between the heart's action in male and female fœti to be about one and one-half beats per minute.—*Medical News*.

MENINGITIS.—The appearance of herpes on the lips during acute meningitis is a sign that the disease is non-tuberculous, but must not be regarded as inevitably indicative of recovery, as is the case in pneumonia and some other affections.—*Cincinnati Lancet-Clinic*.

RETRO-PHARYNGEAL ABSCESS.—This affection is more commonly met with in children than in adults, and when occurring in the former is generally associated with strumous diathesis.—*Cleveland Medical Gazette*.

The Medical Age.

VOL. XIV.

DETROIT, DECEMBER 26th, 1896.

No. 24.

Original Articles.

LEECHES.*

BY D. W. ELLIOTT, M.P.S.I.

The history of the leech is somewhat obscure, and when it was first used in the practice of medicine is equally involved in mystery. But that it was familiar to many of the ancient writers is quite evident, for it is mentioned in the works of Herodotus, Cicero, Horace, and Pliny, as well as by many others. It was first mentioned by Themison, a Greek physician, in the first century B.C., as a regular therapeutic agent, but it does not necessarily follow that he was the first to discover its properties of blood-letting or so to use it. Its name, *Hirudo*, is supposed to be derived from Haurio, to draw out; and the more modern *Sanguisuga*, from Sanguis, blood, and Sugo, to suck.

It belongs to the class of invertebrate animals called Annelides, and to the order Abranchiatæ, and family Asetigeræ.

Annelides include worms with red blood, soft retractile bodies composed of rings and without feet, but which move instead by the contractile power of their rings. The class Abranchiatæ includes those annelides which have no apparent external organs of respiration. The family Asetigeræ have no setæ or bristles by which to enable them to move.

In general appearance the leech may be described as having an elongated body, varying in length from two to three inches, with back convex and belly flat, tapering towards the extremities, which expand again, forming terminal disks or suckers. There are many species of the leech, but two only are recognized officially—*Sanguisuga Medicinalis* and *Sanguisuga Officinalis*, called respectively the

speckled or gray leech, and the green leech. Many of the best authorities consider the speckled and the green merely varieties, as both are marked with six longitudinal, rusty-colored stripes on the back—the two central without any pits or marks, while the outer two on either side are marked at regular intervals with black spots. It is on the under side that any difference is distinguishable—the *Medicinalis* being densely spotted with black, and having black marginal stripes; the *Officinalis* green, varying from olive to yellowish, also with black marginal stripes. In addition to the two recognized species, there are many others which have from time to time been tried in this or other countries, but they have now almost universally given place to the two already described.

Two others, however, deserve to be noticed, viz., the African and American species.

The African leech was at one time extensively used in France, but I am informed that its importation has ceased, owing to its vicious bite. I regret I have not been able to procure a specimen. It is of a beautiful green color—often inclining to red—with black points on the back and broad streaks of bright orange-yellow, which are black towards the abdomen.

The American leech, *Hirudo Decora*, is still used in some parts of the United States. I understand it is at present a great favorite in Philadelphia. It is a deep green on the back, with three longitudinal rows of square spots, twenty-two in number, one spot being situated on every fifth ring. The central row of spots are light brownish-orange, the outer rows black. It does not make so deep an incision as the European leech, and draws less blood. A specimen of this leech could not be procured either.

The leech inhabits and breeds in freshwater ponds, non-tidal streams, marshes, and

*Read before the Ulster (Ireland) Pharmaceutical Association, December 1st, 1896.

weed-covered pools of stagnant water. It swims rapidly and with graceful undulations. It can also proceed when on the ground at a good pace by extending its body to its full length, fixing its anterior disk, and then drawing up its posterior disk to take its place, extending its body again, and so on.

Many attempts have been made to breed it in the United Kingdom, but its delicate nature has hitherto marred success. After many costly experiments it has been found that the countries bordering the Mediterranean lend themselves most favorably, by reason of their climates, to this purpose, and here the scientific and successful leech-breeders have established their farms.

Leech-breeding has also been tried in America, and at one time perhaps the largest farm of the sort in existence was located at Newton, Long Island. The farm at Newton contains over thirteen acres, divided into ponds of one and a half acres each in extent and three feet in depth, with bottoms of clay and margins of peat. At the height of its success this farm's output was estimated at 1000 leeches per day.

The breeding season is from spring to autumn. In the months of July and August the leeches begin to leave the ponds in pairs and to burrow in the banks, where they soon deposit a slimy, sponge-like cocoon, containing from seven to ten eggs. The cocoon ranges from half an inch to an inch in length, and weighs from twenty to thirty grains. When first deposited it is soft, slimy, and gelatinous, but after some days it becomes brownish and fibrous in appearance, and very much resembles a fine Turkish sponge. Three or four days after copulation, this slimy substance which forms the cocoon begins to form above and below the genital organs, where a contraction of the parts may also be observed. After the eggs have been deposited in this substance, the anterior part of the body elongates, the leech withdraws its head, and the structure just mentioned drops off as a cocoon. The time which elapses between the deposition of the ova and their hatching varies from twenty-five to forty days. After hatching, the young leech remains for about sixteen days in the cocoon, subsisting on the albuminous matter which it contains. After this period it is necessary to provide it with

blood. Frogs and fish are animals upon which at this tender age it can readily fasten, and from which it can draw considerable quantities of blood. It is, however, sometimes compelled to live on the micro-organisms always to be found in water.

On leaving the cocoon, the young leech has the appearance of a large gray maggot. Its growth is very slow and tedious, as it is not fully colored until two years old, at which age it is sexually and medicinally perfect, although it continues to grow for two or three years more.

Perhaps the most ingenious and really marvellous feature of the leech is its mouth, which is situated on the anterior and spoon-shaped disk. In shape it is tri-radiate—that is, three equidistant lines meeting in the centre. The lines are not quite straight, but slightly crescent in form. Within are three jaws, which in appearance are cartilaginous. Each jaw is furnished with a single row—not a double row, as at one time supposed—of about sixty very fine and sharply pointed teeth. On the same disk are placed ten black specks in crescent form, supposed to be organs of vision. It is worth mentioning that this disk is generally folded downwards from the apex towards the base, so as to obscure the eyes, when the leech is at perfect rest. Moreover, when at rest it never allows its anterior disk to be in contact with anything.

The leech has an enormously large stomach, or, rather, alimentary canal, occupying almost two-thirds of its whole length. That this organ and its appendages may be thoroughly understood, I have had some photographs printed. On referring to Fig. 1 will be seen the œsophagus or gullet, *a*, and *b*, *c*, *d*, *e*, *f*, *g*, *h*, *i*, *k*, *l*, and *m*, the cells of the stomach, eleven in number. Each cell gives off a little sac. It will be seen that the sac of the last cell is very much longer than the others and is funnel-shaped. *O* is the pylorus, *p* the duodenum, *q* the small intestine, *s* the large intestine, *f* the rectum—which is not situated, as might be expected, on the posterior disk, but on the dorsal surface of the last ring.

The next photograph (Fig. 2) shows the nervous system. *A* is the brain; *b*, the last nerve expansion; *c*, lateral vessels; *d*, folded

mucous glands; *e*, penis; *f*, seminal vesicles; *h*, testicles; *i*, uterus; *k*, ovaries.

The leech is hermaphrodite or androgynus—that is, has both male and female organs of generation; but although thus provided, it is generally believed that it has not the power of impregnating its own ova.

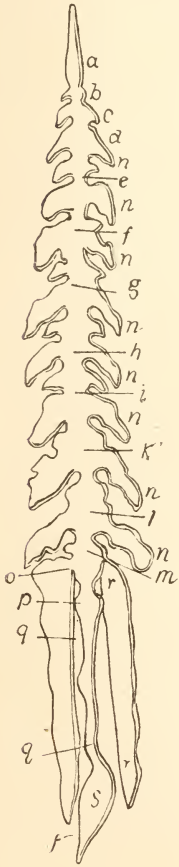


FIG. 1.

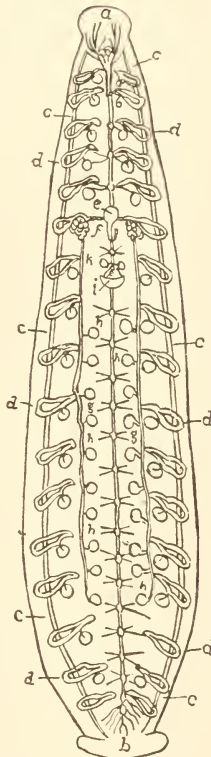


FIG. 2.

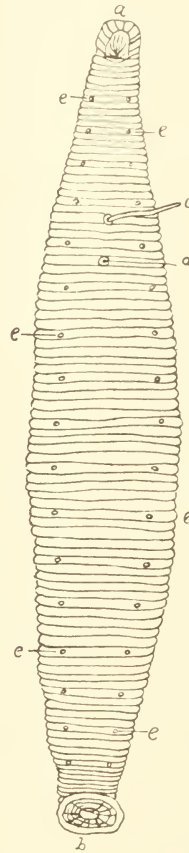


FIG. 3.

average length of life is not known. Messrs. Fitch & Nottingham say: "In the ponds they have been known to remain alive till after twenty-five years, but in captivity we have known them to live in an equable temperature for five years. The bite of a true *Medicinalis* is less painful than a pin-prick, and we have known our people to lose a lot of blood before they have known that a leech had fastened."

Slow in growth, the leech also digests slowly. It has one good meal annually, after which it sinks or buries itself in the mud until it has assimilated its food. In aquariums they are not fed at all, but apparently subsist entirely on micro-organisms contained in the water.

There are many contrivances for keeping leeches for the purpose of sale, all more or less elaborate, but the following simple method will be found to succeed well: Take a two-gallon stone jar, similar to that used for ammonium carbonate, and, having washed it well, add one quart of carefully cleaned shingle, and fill the jar three-fourths full with water; tie the mouth over with a piece of calico to prevent leeches climbing out. Change the

major portion of the water about once a week. This will do for fifty leeches. It will be well to give the vessel occasionally a thorough cleansing, especially the shingle, as after a while the inside as well as the shingle becomes coated with a slimy substance, and the shingle in addition holds the epidermis, which, we shall see, is cast every four or five days. As this matter increases, the water becomes more rapidly unfit to support life. If these simple details are attended to, I believe the mortality amongst leeches kept for sale will be greatly reduced.

The cutaneous system consists of an epi-

The male organs consist of a penis, two vasa deferentia, two vesiculæ seminales, and two ejaculatory ducts, placed between the twenty-fourth and twenty-fifth rings, and several pairs of testicles. The female organs, situated in the hollow between the twenty-ninth and thirtieth rings (five rings distant from the male organs), consist of a vagina, uterus, two ovaries, and two oviducts.

Our third photograph (Fig. 3) will show the position of these organs: *a*, anterior disk; *b*, posterior disk; *c*, penis; *d*, vagina; *e*, sense spots on every fifth ring.

The leech is a very long liver, although its

dermis and a corium. The transparent epidermis is cast every four or five days. The corium contains the pigment cells. It is held by many that the leech's color is considerably modified by the soil in which it lives. The rings of which both skins are composed are 102 in number.

Of the uses of the leech in therapeutics, little need be said here, as it hardly comes within the scope of a paper intended to be of pharmaceutical interest only. However, as chemists are still sometimes requested to apply them, the following may be interesting:

A healthy leech will draw from one and a half to two drachms of blood, sometimes more, sometimes less—a great deal depends on the place and the condition of the part to which it is applied. It will extract more blood from a vascular or inflamed surface than from firm and less fleshy parts. When it is thoroughly gorged it will drop off, or a little salt applied about the head will induce it to let go at any time. It is always undesirable to detach it by force.

In some instances it may be necessary to increase the hæmorrhage, and for this purpose various expedients are resorted to. One method—a very cruel one—sometimes used in Germany, is to make a small incision in the side of the leech, by which the blood flows out as rapidly as sucked. By this means almost any quantity of blood may be extracted; but a more humane plan, and one equally effective, is the use of warm fomentations, or the application of the ordinary cupping glass over the wound.

It not unfrequently happens, however, that hæmorrhage from the bite is most difficult to stop; but generally all that is required is a little firm pressure, or the application of some strong solution of perchloride of iron, or in very obstinate cases a suture may be necessary.

When applying a leech it should be handled as little as possible, and never with the bare hand. A piece of moist lint is the best thing with which to hold it. Should it refuse to bite, as frequently happens, the part should be smeared with a little cream, or a slight scratch with a needle will succeed. Of course the part should always be scrupulously clean and free from soap or anything oily.

Many interesting experiments have been tried to make the leech disgorge, with the

object of using it again at an early date. Solutions of vinegar, salt and camphor have all been tried. The following plan works well: Place the leech in a twenty-per-cent. solution of common salt for a few seconds, catch it by the tail, and dip into water warmed to about 120° F.; then strip lightly between the fingers from the tail towards the head, when it will readily give up its meal. It should then be placed in fresh water, which should be changed every day for about a week, when it will be ready for re-application.

At one time the consumption of leeches was enormous; in 1822 it was computed that by London dealers alone over 7,000,000 leeches were sold annually. About the same date the annual consumption in Paris was 3,000,000, and as late as 1876 one London firm sold as many as 50,000 per week. As a further illustration of its promiscuous use in the early part of the present century, and before its scientific uses were properly appreciated, I might mention that in 1844 the leech account for the Royal Infirmary, Edinburgh, for the year was something like £180; this decreased steadily until in 1868 it amounted to little over twenty-two shillings.

Sir Robert Christison states that the price of the best leeches in 1845 ranged from £4 to £8 per thousand, and about thirty years ago the price per thousand varied from £10 to £15. What a vast difference there is between these prices, and the wholesale cost at the present time as quoted by Messrs. Fitch & Nottingham—25 for 2s. 9d., 50 for 5s., 100 for 9s., 500 for 30s., and 1000 for 50s.

Belfast, Ireland.

DANGER IN THE BARBER SHOP.

BY E. B. M'GRAW, M.D.

No doubt the number of persons suffering from syphilis and tinea sycosis contracted under the hands of the barber is very great. Within a few months I have treated several cases of sycosis, and know of many more which have fallen into the hands of other medical men. To illustrate: On Saturday, in particular, the barber shops are usually well filled, and, of course, the more customers the more careless the operators. A man gets into the chair who has a few pimples on his face. He may be known to have syphilis,

but nevertheless his face is lathered with a brush, rubbed, sponged, then lathered again, and the razor applied; if in the hurry a pimple is cut, the barber reaches for the sponge, wipes off the blood, and goes on until the whole face has been scraped; then applies the damp sponge and retraces his steps with the razor, soap being meantime applied with the sponge as needed; finally a towel for drying. During all this time blood has been oozing, and at last a piece of alum, that perhaps has served the same purpose a score of times every day for six months, is applied to the face, especially to the pimple, and, streaked with blood, is laid away ready to serve the next one. Then the common puff and powder come into use. The second customer, who may be a perfectly healthy man, now takes the seat. Some slight pretense may or may not be made of cleaning the implements, but it is always perfunctory and superficial. The same performance is gone through with, every customer using the same cup, soap, brush, sponge, and razor. Perhaps one is nicked slightly, and a little blood flows. If so the same sponge is employed, and the same piece of alum to check the oozing. The alum is the only saving measure in the whole performance. The second or third, or seventh man, as the case may be, leaves the shop wholly oblivious of the fact he has been exposed to one of the most disagreeable of diseases.

With a little care and very slight expense all this could be avoided. Instead of a sponge, barbers should employ a towel, never using a second time or on a second person unless it has been thoroughly washed and sterilized. Lather should be made in a cup, applied with the cheapest kind of a brush, and the latter then destroyed—or a small bit of cotton might be substituted for the brush. The razor could at all times be readily sterilized by the aid of boiling water or some antiseptic solution. Finally, the barber himself should thoroughly wash his hands in 1:2000 solution of bichloride of mercury after ministering to each customer, and employ the utmost care in handling the razor.

The risks of infection from all diseases liable to be conveyed in this manner, with a little care could be reduced to a minimum, but at present they are very great.

Our boards of health take especial precau-

tions against epidemics of smallpox, diphtheria, scarlatina, typhoid fever, etc., but no one ever hears of any precautions being taken against syphilis, which is one of the most loathsome of diseases, and the number of people suffering with one or another stage of this disease is far greater than is ever suspected—by the laity at least. And these same people are permitted to use drinking-cups and other articles at public places with the greatest freedom, while those in a house where there is scarlet fever are quarantined and the dwelling placarded with a flashy-colored sign, and if necessary a policeman is stationed at the door to prevent the people from mingling with others. This latter is as it should be, but I hold that equally effective measures should be taken to prevent the spread of syphilis, sycosis, and other loathsome maladies.

Syphilis, it is true, has been with us for generations, and will be with us as long as the world is inhabited; but is that any reason why no measures should be taken to protect healthy and innocent people? If persons expose themselves knowingly to this danger, as a great many do, then they should be treated as are those suffering from any other contagious disease. If our laws were such that persons suffering from this dread malady could not marry until they had first undergone treatment for not less than two years, and then waited two or three years or even more to insure the perfection of the cure, there would be fewer still-born infants and a decided reduction in the death-rate of children under years of adolescence. I firmly believe that with proper care and treatment syphilis can be cured, or so nearly cured that healthy children can be born; also that acquired syphilis succumbs more promptly to treatment than hereditary, for the simple reason that the system, if taken in time, is not so thoroughly saturated with the poison.

I feel sure if physicians would impress their patients with the dangers accruing from public drinking-cups, towels in hotels and offices where a number of persons are employed, and also the carelessness of the barber, and explain to them the means by which these dangers could be overcome, many would profit thereby.

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HYGIENE OF ADOLESCENCE.

BY J. A. JACKSON, M.D.

That we ought to pray for a sound mind in a healthy body was expressed in the old Latin precept, "*Orandum est ut sit mens sana in corpore sano.*" And of a truth this applies with greatest force to that transition period between puberty and maturity, when the organism is rapidly blossoming into the full vigor of manhood or womanhood. The mind is developing to its highest capacity, and character is being formed and fixed for life. No greater blessing could an adolescent of either sex ask than that of having passed unscathed through blissful infancy and childhood, to come into possession of a body with organs and function so perfect as to insure a long lease of life in harmony with its surroundings, free from aches and pains and sickness, exulting in joyous existence, only to end in the last peaceful sleep of extreme old age—a body so trained and disciplined as to be for many years the "willing and obedient servant of a mind" endowed with keen senses, clear perceptions, strong intellect, noble feelings, high sentiments, benevolent desires, and powerful will.

Such perfection of life finds this world an earthly paradise, and the kingdom of heaven always at hand, but is seldom attained because of man's ignorance of the laws governing his being, or his perverse disregard of them.

The hygiene of adolescence comprises the best care of the physical organism, and the proper use and management of each individual part; it invokes the aid of physiology to explain the laws of material being, and that of psychology to point out the mysterious processes of the mind. It is not enough that the bodily organs be developed to the highest degree of strength and vigor, and preserved in perfect health; the method by which the mental powers may attain their fullest measure of capacity must also be learned. And lastly, it is the function of pathology to reinforce the lessons of physiology by pointing to the direful consequences of unrestrained desires and passions, illy spent lives, and evil practices.

It is impossible in a short article to give each special organ the consideration it is

entitled to. There are numerous excellent treatises by able authors devoted to the proper use and care of the eyes, teeth, nose, ears, skin, etc. These, under the guidance of a trustworthy and honorable medical man, who will expunge worthless and vile trash, can be procured by loan or purchase. There often-times exist, however, defects of sight, hearing, breathing, or of the sexual apparatus, that require skillful treatment, by reason of inconvenience, ill-health, or mental or moral obliquity to which they stand related as either reflex or direct causes. Such must come under the care of the medical attendant or be by him referred to the specialist.

Each and every organ is to be considered of sacred importance, to be guarded against every evil influence and protected from weakening and debasing acts. Man is surrounded by good and evil influences to which his organism responds by ennobling or degrading actions that quickly result in good or bad habits. By repetition of acts, lines of rapid and ready response are soon worn in, until peculiar aptitude to act in a given manner is acquired, when this wonderful machine becomes automatic; good habits soon become easy and spontaneous, while the opposite only too surely chain to a life-long slavery.

Cleanliness as next to godliness is one of the first principles of hygiene. Balneology, or all that pertains to the art and science of bathing, would here be out of place. The skin must be kept clean; dirt and natural accumulations hinder its functions, which are manifold. Hard and fast rules do not apply, by reason of individual variance as to vigor, health, comfort, and benefit. Some robust creatures revel in a cold plunge or shower bath followed by brisk rubbing; others, less vigorous, enjoy the hot or tepid bath to advantage. Much will depend upon means and opportunities, but each one should discover the law as it affects himself, and act accordingly. Every one can sponge the surface with clean warm or cold water, and, after drying, use the flesh-brush or not, as may be best. As a rule the Russian or Turkish bath should only be taken by advice of the physician.

We eat in order to live, yet so great is the ignorance of dietetics that every one eats too much or too little, or partakes of food not

adapted to the wants of the system. Often the aliment is not properly masticated and insalivated, or is in one or more ways not properly digested. The question of diet and cooking is receiving much attention because it is now known that many diseases and premature old age are often the result of poisons generated through indigestion or malassimilation. The maintenance of health presupposes perfect nutrition, and prompt elimination of waste products by the emunctories. With healthy livers, kidneys, skin, lungs, etc., this effete matter is worked over or cast out, preventing dangerous accumulation. No rigid and stringent rules as to diet can at present be laid down. Each person should intelligently endeavor to gain personal experience or be guided by skillful advice. In a general way it may be said that the average person should slowly partake of a reasonable quantity of the various food-stuffs known to be nutritious and easily digested, in part selected from the animal kingdom—eggs, milk, meat, fowl, and the like—combined with a fair proportion of cereals, vegetables, and fruit. Purity of all that enters the stomach should be invariable, for tainted or contaminated articles of all kinds are unsafe and may be very dangerous.

Concerning the use of tobacco and all forms of intoxicating beverages, it is not necessary to expatiate at length. Boundless health and strength are the privileges of the bright morning of life that thirsts for no stimulant, and needs no prop. Fresh air, good food, exercise, work, and sleep, are the conditions of vigorous health during adolescence. To speak with judicial impartiality, narcotics and intoxicants are more likely to prove harmful than beneficial at this period. Any benefits they may confer apply when duties and cares sorely tax middle life and old age, whose feeble digestion and wakeful nights betimes cry out for an artificial support to lighten ever-increasing burdens.

In regard to clothing, much might be said did time permit. Good sense, having regard to the requirements of the season, must often direct what we shall wear, with an eye more to comfort and well-being than to the dictates of fashion. While overclothing ought to be avoided as predisposing to "catching cold," the body should be adequately clad

during inclement weather, for sustained chilliness of surface suppresses the action of the skin, congests the deeper parts, and thrusts burdens upon other organs too suddenly for them to bear. Especially is good non-conducting underwear desirable. The feet ought never to remain cold or damp for a long time, but throughout the greater part of the year should be warmly encased in good woolen socks or stockings. This matter of clothing applies with especial force to young women, particularly at or near the menstrual period, for interference with this function by cold is too often the precursor of lifelong invalidism.

The evils of tight lacing, which compresses many organs so as often to produce permanent injury, cannot be too strongly enforced, and the same could be said of waistbands and straps buckled so tight as to embarrass underlying parts. Hygienists rightly advise that the weight of the garments should be transferred to the shoulders by means of a properly devised supporter.

The hygiene of youth must deal with the important topics of fresh air and exercise, including the question of sports and athletics. Lively games of amusement and recreation in a clear atmosphere are Nature's own remedy, far better than medicine. It would not be in place to argue the superior merits of some games or the inferiority of others. As a people but lately taking little interest in athletics, we are fast becoming a nation of "record-breakers" in our over-enthusiasm. Sport such as young animals indulge in is invigorating to mind and body. But it is time a halt was called to this mad rushing to the front with a crazy desire for victory along all lines, at no matter how great a cost. Thus play and diversion become the most exhausting kind of hard work, that only wears out this wonderful human machine, depresses mental power, and lowers moral tone. Contests undertaken in the true spirit of fun and play lead to manliness, cheerfulness, and a generous spirit of fairness that takes defeat with a smile and good humor, or extends the encouraging hand of success to the vanquished, instead of the woe begone expression of nervous prostration that meets failure with sulks and hysterical emotion, or screams itself hoarse over victory. "All work

and no play makes Jack a dull boy," but adolescence should always have an eye to the realities, duties and trials soon to come, and for which the mental and bodily training ought to fit one. Pure air at all times, warm or cold, sunny or cloudy, wet or dry, night and day, is necessary for the maintenance of health. It contains life-giving oxygen which gives the bright red color to the blood, that bathes and nourishes and cleans out every nook and corner of the organism. On the other hand, a vitiated atmosphere is a most prolific source of disease; it benumbs all the vital processes, diminishes bodily and mental force, and lessens resistance to all forms of disease.

Another essential condition of good health is abundance of calm, refreshing sleep, in a properly ventilated chamber, taken during the quiet hours of the night which Nature has selected as the best time. Of course, ideal lives fulfilling all hygienic requisites are rarely to be found. Most of us are compelled to adapt ourselves to our individual circumstances as best we may. But, other things equal, every young person should try to secure at least eight hours of undisturbed sleep every night, for too often the cares, obligations and sleepless nights of after-life, while severely taxing the endurance, will bring regrets for lost opportunities. During sleep the tired organs are renovated for the work of the morrow, while the worn-out particles are silently carried away. Too much covering causes restlessness—often erotic dreams and seminal emissions in the male. For the same reason it is better to cultivate the habit of lying on the side rather than on the back. Adequate covering, of not too heavy material, that will keep the body comfortably warm but not unduly heated, should be chosen. And for these and other reasons it is better to sleep on a good, suitable, well quilted mattress of hair or moss than on a feather bed.

The excretory organs—skin, lungs, liver, kidneys, and bowels—cast out effete matter from the system. Some are at work constantly, without cessation, notably the skin and lungs; others for convenience collect the excretions in well adapted temporary receptacles like the bladder and lower bowel. The calls of Nature to empty these must be

promptly answered, for neglect is sooner or later followed by penalty. Very often a sense of modesty prefers to endure distress, but much oftener business, pleasure or other unjustifiable excuse is alleged for disregarding natural demands. In this way the female bladder is liable to be seriously overdistended, with permanent injury. Costiveness is totally incompatible with health; poisons that damage the whole system are absorbed, with consequent sickness; the tone and function of the rectum is lost, and habitual constipation is the result, followed by troublesome hemorrhoids, painful fissures, seminal losses and prostatic and vesicular disease in the male, menstrual irregularity and ovarian and uterine disease in the female. There is but one remedy: ceaseless vigilance and never-ending punctilious daily morning evacuation.

Mind and body, spirit and matter, are relative terms. Every bodily act is registered in the nervous substratum of the mind. Each thought, each feeling, and each volition, directly or indirectly registers its impression on the material organism. What vast possibilities for good or evil, what immense responsibilities, does the education of youth then imply! Where is the wisdom that shall unerringly outline the course and answer the question, "What shall be taught?" and describe the methods of teaching? Any attempt at solution of so prodigious a problem must of necessity, at least in the present state of things, fall back upon general principles; for in this regard, as elsewhere, much depends upon the circumstances of means, position, opportunity, natural ability, and the like. But these fundamental principles being deeply grounded may well serve as a foundation supporting varied magnificent superstructures. With perfect physical organisms reinforced by ample means and unlimited facilities, what a world of wonderfully perfect men and women would an education—true in every sense of the word—bring forth! As a matter of fact and stern necessity, education must often be utilitarian, and fit us for bread-winners in the station of life to which we are called. But an education worthy of the name should go further than that. It should begin at the very root of our being, and deal with every phase of existence. It ought to take

note of our needs and requirements, our possibilities and limitations, and develop all our faculties for good to the highest degree—to lead us out of our actual selves to the highest plane of existence to which we aspire; to develop character and to fix habits; to open up ever-widening paths of knowledge; to “instruct the intellect in the laws of Nature” and of “men and their ways” by the history of countries and of peoples as well as of kings; to “fashion the affections and will into an earnest and loving desire to move in harmony with the law of Nature and of Man;” to give us command of language as the embodiment of thought; by means of the best ancient and modern literature to familiarize us with the best thoughts of past and present; “to fit us either to be ‘leaders and governors’ or to ‘appreciate wise guidance and good governance;’” to instruct youth with such useful knowledge as will insure good husbands and wives and commendable citizens, with “clear intellects having every part of equal strength, whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience;” to learn to love all that is beautiful, good and true in man, in art, and in nature; “to hate all villainess, and to respect others as himself;” to store the mind and train the reason with the facts and through the laws of the natural and experimental sciences, as unsurpassable in the inculcation of love of truth and in conferring methods of precision. These are some of the objects and aims of a complete education, which elevates to a higher standard of humanity, enlarges the understanding, extends the sympathies, purifies the sentiments, and quickens with admiration for all that is exalted and sublime. It lessens the sum of evil, ignorance, and suffering, while it increases the measure of wisdom and happiness. Furthermore, it bestows self-reliance and fits for the problems of life, and culminates in the greatest of all achievements—self-possession, calmness of spirit and self-mastery.

Finally, we approach the most delicate and difficult part of what the adolescent should do to maintain the body in a state of vigor, and the mind healthy and happy. What can and ought to be done for the youth by those who are older, wiser, and stronger, to carry

them innocently and safely through this perilous period of life and land them on the rock of maturer years of wisdom and strength? Who shall explain to them the promptings, suggestions and yearnings which are rising above the horizon of this new sexual life, and demanding recognition of consciousness? Would it not be better if it were understood by the youth that the generative organs and instincts are a part of the mysterious processes of creation, divinely ordained to work out a definite aim and end throughout animated nature, which for man means happy marriage, devotion of husband and wife, blessed maternity, fond parentage, healthy and dutiful offspring? If it were known that a perfect life full of richness and promise knows no compromise with chastity as the price of happiness, would not youth better be able to subjugate passion and impulse because necessary and quite possible? Would not adolescence willingly bear with inconvenience and repress tendencies, turning away in disgust and abhorrence from any perversion of a sacred function, and be filled with a wholesome horror of the penalties of bad habits and corrupt practices?

Were we medical men the “custodians of the people” *de facto*, instead of posing with folded hands in the rôle nominally, how would we rise in our might to crush the monsters of unrighteousness, and slay the foul fiends ignorance and vice! Skilled in our art, learned in the laws of our being, and versed in all the wicked ways and damnable artifices of the evil one, why are we not in fact as well as in feeling the sworn defenders of youth and early manhood from pollution and degradation, and the proclaimed champions of womanly virtue? Is it not time we raised our voice in behalf of the freshness and gladness and innocence of youth, to preserve it chaste in body and mind, full of cheerfulness and hope, safe from the blight of iniquity, from loss of self-esteem, and from the demon of despair? Let us begin at once and invoke the aid of parent, teacher, pastor, and legislator. Let us watch with jealous care the interests of youth; protect and encourage the fortunate by birth and surroundings, and rescue and inspire with new hope the unfortunate victims whose fears we can often allay and whose misery assuage. Let

us be up and never cease doing until we have thrown an efficient safeguard around the young from youth to manhood, within whose magic circle no evil-doer can come; until the strong arm of the law shall deal the death-blow to the pestiferous viper who allures the boy into bad habits, and to the villain who seduces woman from the path of rectitude and purity; until it inflicts severe penalty upon all corrupters of good manners and propagators of loathsome diseases which damage the constitution, it may be, for life. Let us insist upon a censorship of the press which will allow only what is fit to be read to come within the reach of the young, and which will compel the expurgation of all that is filthy and lewd, from the low, crafty production of some glib-tongued prophet of the restoration of lost manhood to the unclean drivings of high-grade degenerate authors of gilt-edged literature. In what and how many directions the censor of youthful morals could and should extend his criticisms, must here serve as a theme for the imagination.

When uncertain and in doubt, let the young seek in time the advice of those who they know have their interests at heart—either the parents or an older, trustworthy friend, perhaps some well known and upright companion; or let them be admonished to solicit the friendly and fatherly counsel and protection of the good family doctor, who will always help them to frustrate the schemes and confound the plans of any vampire that designs to sap the life of manhood, and who will steel the heart and ear of woman against the luring voice of the tempter and betrayer, and shelter the young of both sexes from harm.

And as the good done in this world increases fourfold, just so surely would this subject, properly taken hold of, add greatly to the sum of human happiness. It would enlist the services of those who, either through the inestimable boon of natural robustness of character and less erotic susceptibility, or because of felicitous rearing, are themselves averse to "complaisant dalliance" with sexual propensities, and to whom all enervating habits are repugnant, in aiding their weaker brethren in a continual contest to maintain personal chastity and to obtain self-

mastery over the influence of sexuality. Example, precept, tender sympathy, refining influences and religious sentiment would thus concur in restoring to peace of mind and health of body that large army of highly sensitive, nervous weaklings who, falling victims to bitter experience, are filled with gloom and melancholy, and who, having abandoned all hope, believe themselves doomed to insanity or early death—tormented by night by fear of loss of virility, through what may be a mere excess or natural overflow of semen during sleep, or by the dread of spermatorrhœa through discharge of prostatic fluid by day. Many such require local and general treatment. All are made worse through exaggeration and imaginary fears, until life is a burden. And all can be benefited by appropriate measures. The physician must inspire new hope and appeal to all the better qualities.

To watch jealously over the welfare of adolescence, from the bright, promising period of childhood to the full realization of robust health, endurance, and ability of maturity, will be the pleasing duty of the hygienist of the future. "Then shall youth rise up and call us blessed."

Madison, Wisconsin.

CYSTITIS.

BY D. A. MIDDLETON, M.D.

Cystitis is a purulent inflammation of the bladder, and is invariably due to local microbic infection, though often secondary to some disease of the genito-urinary tract. It may be said that cystitis proper is never caused by toxins secreted in the urine or distributed to the substance of the bladder from the general circulation, though all the symptoms may be produced by the administration of irritating drugs, such as cantharides, the terebinthines, tincture iron chloride, etc. It is claimed by some that infection can enter the bladder by way of the lymphatics, but this is a moot question.

Statistics report the female sex as furnishing the larger number of cases of cystitis. The female bladder may be infected by pyogenic germs when that of the male is entirely exempt; the cause of this may be consid-

ered mechanical as well as inflammatory, on account of the anatomical relations of the pelvic organs—in other words, the female pelvis becoming crowded, the chances for mechanical irritation are increased.

Acute suppurative cystitis may involve the deeper structure of the bladder, and at the same time there is breaking-down of the mucosa and submucosa near the mucous follicles; while in the membranous form the deeper structure may remain unaffected. Anæmia is the most prominent predisposing cause. The mucous membrane of the bladder in health is of a light pinkish color, but in cases of lowered vitality it becomes much paler and flaccid, especially near the trigone, where the disease usually begins. As soon as the inflammatory process has been established, there will be ecchymoses and breaking-down of tissue, leaving cavities between the rugæ at the base of the bladder which form a place for the deposit of small calculi, secondary to the disease. I have observed one case in which the calculi developed four weeks after the onset of the disease. Trauma and suppurating abscesses may perform an important rôle in the causation of the disease, but commonly the invasion of pyogenic germs, which find a favorable soil in the superficial substance of the bladder, will be found sufficient to produce a most aggravated case of cystitis.

Cystitis in women can be attributed in a very large proportion (about ninety per cent.) of cases to the invasion of micro-organisms, some vaginal or uterine discharge being the source of the infection, which is transmitted through an apparently healthy urethra, that later becomes infected itself. It has been noticed by old observers in the treatment of gonorrhœa, that suppurative cystitis sometimes follows catheterization, and modern pathologists have found the gonococcus present in the bladder in such cases after the urethral symptoms had passed away. According to Melchoir, the *Bacterium coli commune* is found in a large number of cases; it is pyogenic and infectious and of variable virulence. But the microbe alone does not produce the cystitis (as in the case of the proteus of Hauser, which, merely by its introduction into the bladder, is able to determine a cystitis by virtue of its property of decomposing urea); cystitis arises only when

the bladder has been rendered vulnerable to infection by different predisposing agents. Ammoniacal urine may be a necessary condition for the establishment of cystitis in some cases, but this is rare.

In the diagnosis of cystitis it must be borne in mind that almost any inflammation of the urinary tract will cause some of the symptoms, such as frequency and urgency of micturition, pus, etc., hence these are by no means pathognomonic; pyuria is undoubtedly a most important symptom, but its importance lies chiefly in the determination of the portion of the genito-urinary tract from which pus comes, a point that can be most easily cleared up by the "three glass test." The use of the cystoscope does not always give satisfactory results; Dittle records several mistakes which he made by the use of this instrument.

In treatment prophylaxis deserves first place. The condition which most favors the development of cystitis is a suitable soil. The chief difficulty to be overcome in avoiding the introduction into this soil of the germs of disease, arises from the fact that it is almost or quite impossible to render adjacent organs absolutely aseptic. Full irrigation of the urethra with a saturated solution of boric acid will largely free this channel of germs, so that a catheter or sound may be introduced into the bladder with safety. Sounds and catheters may be sterilized by being placed in hot carbolized solution, 1-to-200, but rubber catheters are best placed in a 1-to-4000 bichloride solution. All vaginal discharges should be treated by hot douches of bichloride, 1-to-8000 solution. For urethral and vesical irrigation, the proper instruments to be employed consist of a glass funnel, rubber tubing, and catheter with return flow (or the soft rubber catheter may answer all purposes). The quantity of fluid should vary to suit each case; some very irritable bladders can retain but little fluid, and while attempting irrigation the tenesmus that occurs from the mere presence of the catheter will be strong enough to sustain the whole column of fluid several minutes. In such cases it is the best policy to have the column very low, gradually raising until the proper height is reached, which is about one foot. The quantity of fluid to be used de

pend upon the condition of the bladder; from one to two ounces is all that is necessary to be in the bladder at one time.

Nitrate-of-silver and potassium-permanganate solutions, in my opinion, stand in the front rank of all vesical therapeutic agents. The latter, in strength of 1 to 2000, may be used where there is pus in the urine with ammonical fermentation. Rovsing has shown the sterilizing action of silver nitrate, by testing it in pure culture of certain pyogenic microbes which he found to be the most common cause of cystitis. Salicylic acid, one-half grain to the ounce of water, is a very reliable solution; Bryson claims that it has, besides its admirable germicidal properties, the additional advantage of penetrating further into the thick cohesive muco-pus of catarrhal inflammation than any other substance. In vesical therapeutics it is important to administer such drugs as will render the urine bland and unirritating and at the same time as nearly antiseptic as possible; this can best be accomplished by the administration of boric acid, salol, benzoate of ammonia, etc.

As a rule the most ardently advocated new remedies employed in vesical therapeutics are unreliable. When the urine is very highly alkaline the administration of ammonium benzoate will often correct the irritation and retard the development of pyogenic germs which thrive in an alkaline medium. In cases of tuberculosis and fatty degeneration of the bladder, and prostatic enlargement, perineal or supra pubic cystotomy has been recommended by some, but this should be a *dernier ressort*, and only performed when the urethra is not able to carry off the accumulation that may be in the bladder, or when irrigation is impracticable.

Case 1.—Mr. B——, aged 33, presented himself October 3d, 1894, with retention of urine, and great pain over pubes. Rectal examination revealed the prostate gland very much enlarged. There was a history of having bruised the perineum while riding horseback, but none of specific urethritis. I used the catheter to relieve the bladder, and found that the urine contained pus and streaks of blood. Prescribed a saline cathartic; employed irrigation of the bladder with a salt solution, a tablespoonful to the quart of water; then ordered citrate of potassium

every four hours, and nux vomica extract three times a day.

October 8th the prostatic enlargement had disappeared, but frequency and urgency of micturition continued; urine contained pus in large quantities, and was decidedly alkaline. I now diagnosed a cystitis secondary to prostatic abscess, and put him on boric acid and sodium bromide for eight days, at the end of which time there was little or no improvement.

I then prescribed fluid extract corn-silk and benzoate of ammonia, to be taken three times a day, and irrigated the bladder with potassium permanganate, two-per-cent. solution; the result was decided improvement in three days. I used the irrigation every day for five days, and the patient made a prompt recovery.

Case 2.—December 12th, 1894, I was called to see a lady, aged 29, whose bladder was very much irritated, urination being demanded every fifteen or twenty minutes; the urine was of alkaline reaction and contained pus. I gave her an opiate for the relief of pain, and eight grains of benzoate of ammonia. Two days later urination was less frequent, but the urine contained pus and epithelium; I noted also a leucorrhœal discharge. Vaginal douches were ordered, of 1-to 8000 bichloride solution, also vesical irrigation of boric acid solution, both to be continued for eight days. The patient promptly recovered.

Case 3.—March 7th, 1896, was called to a lady, aged 26, with temperature of 102°, retention of urine, some vaginal discharge, and pus in urine; she was in the fourth month of pregnancy. Ordered sweet spirit of nitre and saw palmetto. Three days later the amount of pus had increased. Ordered vaginal douche of bichloride solution, and cystic irrigation of boric-acid solution. After five days there was decided improvement, though patient still had some urethral irritation as the result of using catheter.

Case 4.—Called April 6th, 1896, to see a lady, aged 40, who was suffering from metrorrhagia of several weeks' duration. Micturition was frequent, urgent, and painful; urine alkaline and laden with pus and epithelial cells. Ordered a vaginal douche of carbolic-acid solution, and buchu, etc., internally. For ten days there was no improvement. Then I began irrigating the bladder with solution potassium permanganate, giving also every other day triticum repens and elixir saw palmetto for eight days. There was some improvement until small calculi formed

in the base of the bladder, when all the symptoms returned in an aggravated form. I now employed alkaline lithia preparations, but with no improvement whatever; then substituted *nux vomica*, *belladonna* and *digitalis* for a week; also used irrigation every day for twelve days. The patient improved rapidly, the calculi passing out in small pieces for two weeks. She made a complete recovery in three months from the beginning of the disease.

Rising Fawn, Georgia.

AUTO-INFECTION.*

BY J. C. M'ALLISTER, M.D.

A cell is a histological element of the body, having a function. If the cell becomes pathological, its function is perverted and as a result there is illness of greater or less degree. This pathological condition is brought about in one or more of four ways: Impaired nutrition, either inherited or acquired: Through external causes, chemical, physical, or mechanical, as by burns or poisons—the cells are reached at once and cease to be normal: The cells may be acted upon by external causes through the nervous system: Through parasites and infection.

The body is in a constant state of assimilation and disassimilation, the former depending upon ingesta, while the latter produces excreta which depend upon special organs for their removal from the system. Health depends upon proper ingesta, digestion, assimilation, oxidation, disassimilation, and excretion.

Normal man is exempt from disease or infection, syphilis excepted, although the body in its perfect state is a receptacle and laboratory for poisons. Some of the mineral substances which enter the body as ingesta are toxic, and some of the secretions, such as the saliva and bile, are poisonous; peptones are formed by the digestive process from nitrogenous food, which food also gives rise to toxic alkaloidal substances; finally, poisonous substances are generated by the fermentation and putrefaction of the contents of the alimentary canal,—though most

of the latter are thrown off by the bowel, still a certain percentage is absorbed and carried into the circulation. In addition to these, all the products of disassimilation are thrown into the blood, the gaseous and volatile being eliminated by the lungs, and those that are held in solution passing off by the skin and kidneys.

The value of the kidneys as emunctories is very marked, there being fifty times the quantity of urea in the urine that there is in a like quantity of perspiration, or of liquid from the bowels resulting from hydragogue cathartics—thus it is seen that the skin and bowels are but poor substitutes for the renal organs. Aside from fecal matter, the kidneys eliminate about everything from the body but the gaseous and volatile substances.

The urine as a whole contains seven active principles that are toxic: Urea, which is highly diuretic, and properly secures not only its own elimination but the elimination of other poisonous substances: A narcotic substance which probably has not been isolated: A sialagogue, its name and chemical nature not known, that is organic and found in the blood, in the liver and in the muscles in greater quantities than in the urine: An organic convulsive substance, destroyed by heat and retained by charcoal, that is not a mineral: An inorganic convulsive substance, namely, potash: An organic substance which contracts the pupil, but has not yet been completely isolated: A substance possessed of antithermic properties, not yet isolated but with an individuality of its own,—it lessens the production of heat, and does not abstract it as does the cold bath.

The narcotic and convulsive substances in so-called uræmia neutralize the action of each other to a certain degree, and the preponderance of one over the other will determine the presence or absence of convulsions. The narcotic element eventually predominates, and death comes by coma.

The coloring substances of urine are toxic also. It must be evident, therefore, that a pale urine is but slightly toxic, and that the body has retained the poison; also that in a highly colored urine the reverse holds good.—Inasmuch as these poisons are dialyzed from the blood, it is certain that the blood is constantly poisonous. Enough poison is elimi-

* Read before the Lycoming County Medical Society, at a meeting held at Williamsport City Hospital, Williamsport, September 1st, 1896.

nated in forty-eight hours by the urine to kill the body eliminating it.

In so-called uræmia each ounce of blood drawn by venesection removes one-sixteenth of the extractive matters which the urine should carry away in twenty-four hours; also each ounce of blood drawn is equal as an elimination to nine ounces of a liquid diarrhea or a hundred quarts of perspiration. Bleeding, then, is justifiable in acute uræmia and in some chronic cases; it is of great value in puerperal eclampsia, which, with our present knowledge, is a true toxæmia due to insufficiency of the kidneys; but the bleeding should be full. Chloroform has been in great favor in this disease, but should be employed to combat convulsions only and not coma. At present, writers are advocating *veratrum viride* in this important and interesting condition, for a more complete elaboration of which I may refer to a paper by myself in *THE MEDICAL AGE* of October 10th, 1894.—*Veratrum* in full doses by the mouth or hypodermatically, morphine should the coma not be excessive, and atropine in full dose, may be prescribed. Inasmuch as potash is a convulsive, none of its salts should be used in uræmia.

The lungs, aside from the water which is thrown off by them, eliminate chiefly gaseous and volatile substances,—the fæcal odor of the breath in persons suffering from constipation is probably due to gaseous sulphur compounds. The other offensive odors in stomach and intestinal diseases are mostly due to volatile fatty acids undergoing chemical changes due to microbic action. Occasionally the physician finds a patient the odor of whose breath is similar to that of decomposing urine, and I attribute this to ammonia in the blood.

The quantity of bile elaborated by the system is great, equaling that of the urine. Much of it is thrown off by the bowels, though some is absorbed, taken up by the liver, and resecreted. The bile is also a digestant; is antiseptic, inasmuch as it retards putrefaction; and is a stimulant to peristalsis. Bile is toxic, but much less so after it has been decolorized; the coloring matter, therefore, may be justly accused of carrying the greater part of the poisonous material. The biliary salts are not directly

toxic, but break up the blood globules and other cells. The urine of jaundiced persons is very toxic; it is not narcotic, but will produce convulsions even after it has been completely decolorized. This property may be due to potash from cell-destruction, as it is not a property of bile in its original state. Bile is six times more toxic than is the urine secreted in the same time.

In a normal stomach, with normal secretions of gastric juice, the hydrochloric acid is sufficient to inhibit the growth of bacteria; but in dilatation of the stomach where there is a deficiency of gastric fluid or feeble acid reaction, there may be microbic putrefactive and fermentative change giving rise to acetic, butyric, valeric and sulphuric acids, ammonia and ammonia compounds, leucin, leucine, tyrosin, indol, skatol, cresol, phenol, and various hydrocarbons. Putrid products are more toxic than the products of disassimilation.

In dilatation of the stomach the appetite is generally preserved or increased. In from two to four hours after eating, gases commence to form, distending the stomach, and belching occurs. At first the gas is practically without odor, but later has a musty smell and may become foetid. There is pyrosis, and regurgitation with acid taste, due to acetic-acid formation. The stools may be soft and doughy, and expelled slowly and sometimes with pain, owing to their acidity. The liver is often implicated, being congested and inactive. Many of the symptoms are at remote parts of the body; thus urticaria is not uncommon, and is due to the general poisoning; there is frequently an exanthem, and acne in young girls is due to the elimination of the fatty acids through the skin; an erythema of the face, dependent upon the nervous system, may be present. Such persons "catch cold" easily and are subject to bronchitis. Sneezing is due to the irritating properties of poisonous substances being eliminated through the nasal mucous membrane. There is a tendency to asthma. Albuminuria and peptonuria of periodic and permanent character are frequent; and inasmuch as peptones destroy renal epithelium during elimination, the resulting chronically contracted kidney, and in a few years death, is easily understood. The picture is only too common. All this may arise perhaps through

improper ingesta, faulty mastication due to bad teeth or otherwise, a dilated or otherwise faulty stomach, with fermentative or putrefactive condition of the ingested food, and resulting poisons with their many concomitant symptoms, peptonuria and albuminuria and the accompanying chronically contracted kidney. In dilatation of the stomach there seems to be a fair state of nutrition, but the patient is without physical or mental energy or endurance. Phlebitis, purpura, and nodosities of the second phalanx somewhat resembling rheumatic nodules, appear. The nervous system may become involved and the mind affected—the process of ideation interfered with. Dyspeptic coma may supervene. False anginas are common, and tender or sensitive places on the skin develop.

Another type is known as the acute or chronic consumptive: The patient has had stomach trouble for a number of years when suddenly his strength fails and he takes to his bed. The physician finds no lesion and calls it general debility, or as above. The symptoms therefore in stomachal and intestinal intoxication are dyspeptic, hepatic, neurotic, cardiac, asthmatic, renal, cutaneous, rheumatic, and acutely or chronically consumptive.

The management of these cases is a rational one after the pathological condition is understood. Proper food should be used, properly masticated and insalivated, and, in dilatation of the stomach, as dry a diet as possible, two meals a day, and little liquid between. The stomach should be washed out in cases where the food remains so long as to decompose. A good evacuation of the bowels should also be had daily, and the liver should be kept active. The stomach should secrete sufficient gastric fluid to inhibit germ life and to digest the food properly. If necessary to accomplish this, alkalis and bitter tonics should be given before meals; if these fail, muriatic or nitro-muriatic acid after meals. Charcoal should be used to mechanically carry off poisonous material. A daily flushing of the bowels would seem to be rational. The Turkish or other hot bath for its cleansing effect, followed by a cold bath for its tonic action, is of service. These cases are very chronic in their tendencies.

Typhoid fever is illustrative as a type of intestinal infectious disease. The early symptoms are due to absorption of toxins, and the later so-called "typhoid" symptoms are due to absorption of putrefactive material from the bowels. The treatment is commenced by giving in divided doses six to eight grains of calomel daily for a week or ten days. Should the bowels not move freely several times a day, magnesium sulphate should be used in addition. Any one or a number of the popular antiseptics of the day may be given. The cold sponge or immersion bath should be used to reduce high temperature, as an eliminative, and for its tonic effect. Strychnine should be used when the heart is weak or the nervous system profoundly impressed. Nitro-muriatic acid may be used for its property of inhibiting germ life and for its hepatic-stimulant property. The coal-tar derivatives are to be condemned. This treatment, commenced at the beginning of the disease, will, as a rule, prevent ulceration of the bowels with its attendant dangers; deaths will be rare. In many hands it has given a mortality rate of about three per cent., and personally I have had forty cases without a death.

Closely allied to auto-infection, and demanding consideration, are all the infectious and parasitic diseases, with their morbid products, for the relief and cure of which the aseptic and antiseptic methods of treatment are being used more and more. This list of diseases includes many affections of the respiratory and alimentary tracts, of the circulatory system, and of the urino-genital system of both sexes, of the locomotor apparatus, of the eye, of the skin, and the general infectious diseases, as measles, scarlatina, epidemic cerebro spinal fever, syphilis, etc., etc.

On the skin almost every variety of microbe and bacillus has been found. More than one hundred varieties have been found in the mouth, respiratory passages, and middle ear. Twenty-six varieties have been found in the conjunctival sac. Ten varieties have been found in the normal male urethra. Owing to its anatomical structure, the bladder is much more apt to become infected in the female than in the male; it may also become infected, either through contiguity of tissues or by lymphatic absorption, with in-

testinal bacteria. There are no bacteria found in the uterus. The bacteria of the deep vagina develop only in an acid medium and are anaërobic, while those nearer the outlet develop in alkaline media and may be aërobic. The deep vaginal secretions are powerfully bactericidal.

Knowing the actual condition, the general, aseptic and antiseptic hygiene and medication can the better be appreciated. All superficial surfaces should receive careful attention by proper bathing. Also all mucous surfaces of easy access should receive care—the nose and throat by sprays, the mouth by washing and brushing, the vagina by lavage, and the stomach and large bowel (surely in certain diseased conditions) by flushings with plain or medicated water.

Doctor Foster, the physiologist, has lately demonstrated that the blood of a person who is "tired," when injected into another, produces the sense of fatigue, thus demonstrating that the process of exhaustion develops an active toxin—one which chemically resembles curare.

I wish to acknowledge my indebtedness for information to Bouchard's "Auto-intoxication," Trousseau's "Antiseptic Therapeutics," and to William H. Welch in "Dennis's System of Surgery."

Hughesville, Pennsylvania.

SAGACITY OF HORSES.

In the year 1872, during a skirmish with the Sioux Indians, the 3d U. S. Cavalry formed an encampment in a valley on the southern border of Dakota. At nightfall the horses were tethered by a long line to the ground. Toward daybreak a violent storm of rain and hail burst over the valley, when the terrified animals broke loose from their fastenings and tore away up the steep sides of the valley into the territory of the enemy. Without horses, at the mercy of the enemy, we would have been lost; yet it was impossible, in the darkness, to go after them into an unknown country, probably full of Indians. The commanding officer, as a last resource, ordered the stable call to be sounded. In a few minutes every horse had returned to the encampment, and we were saved.—*Thierfreund*.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, George S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., DECEMBER 26th, 1896.

Editorial.

MEDICAL TESTIMONIALS.

Doubtless many have wondered by what means the advertisers of quack and proprietary medicines manage to get together the volumes of so-called testimonial letters which they so sedulously print and circulate. Recently Doctor Ransom, of Nottingham, England, shed some light upon this matter by suing the proprietors of an American nostrum for publishing, over his name, words which he had never given and had no idea of endorsing.

Commenting upon this, the *Medical Press and Circular* remarks: "To put into the mouth of so dignified a gentleman the words 'Hurrah for ——' was a singular indiscretion."

The result of the proceedings was, that the proprietors of the nostrum were obliged to admit unqualifiedly that Doctor Ransom had never written such a testimonial, or uttered the words attributed to him, though they alleged in extenuation that they themselves had been hoaxed by a postal card containing a statement that Doctor Ransom had, at some unknown time, remarked "*something to the effect*" of the words contained in the spurious testimonial.

As a matter of business, one would naturally expect any honest and reputable firm to take definite steps to verify the authenticity of a statement in so suspicious a case, but in this instance there was no pretense of such effort, and it was even admitted that the original as it appeared on the elusive postal card—which could not be produced—had been garbled.

Thus the proprietary-medicine firm in question laid themselves open to the imputation of a direct crime.

Another example has recently been afforded on this side of the water. A "kidney-cure" concern published the following in the *New York Sun* last year, the same likewise appearing in the *World, Recorder, Telegram* (we think also the *Herald*) and other papers as reading matter:

"What are the principal ailments of the American people?"

This question was recently put by a reporter to Doctor Ephraim Cutter, whose name stands foremost in the medical profession. His answer was:

"Bright's disease—the great increase in this fearful malady is attracting universal attention. Every one is anxious to know how it is brought on."

"What causes it, Doctor?"

The physician paused for a few minutes before replying, and then said:

"I can best explain that by a very simple illustration. Any one who eats beefsteak knows what is fat and what is lean. Now if the muscle of the steak is partially changed to fat it is called fatty degeneration. Bright's disease is fatty degeneration, and not one person in twelve is free from some sort of kidney or liver disease."

"May I ask if there is any cure for these complaints?" the reporter enquired.

"Yes," replied the Doctor, "if people will only take the right remedy at the right time. As a rule, it is only when they break down, lose appetite, find their complexion sallow, a constant white coating on the tongue, and inflamed eyes, that they suspect anything is wrong. American genius has found it possible to arrest diseases of the liver and kidneys, and to positively cure Bright's disease. The discovery of —'s — — has been a Godsend to the world. There are thousands of men and women who are alive to-day, and are kept in health, entirely through its use. This fact is now known and admitted by physicians in every portion of the globe."

The words of the Doctor are true, and they demand the serious consideration of every one who reads these lines. Bright's disease is undoubtedly the most alarming of all our modern diseases. It often comes without warning, has few symptoms of its own, but shows the signs of almost all other complaints. Any man or woman who is at all "out of sorts" should not hesitate, for it is a well known truth that delays are dangerous.

Can a greater outrage be imagined? The result is that Doctor Ephraim Cutter has instituted a \$50,000 libel suit against the proprietor of the nostrum.

These are by no means the first or even

isolated occurrences of the kind. The stealing of the good name of medical men to bolster up patent and proprietary medicine swindles has become an art—money is relied upon to prevent exposure, coupled with the "bulldozing" methods and expense attending legal procedures. We know of one instance wherein a nostrum was bolstered by some eighty purported testimonials, and as a matter of curiosity we investigated the matter, only to find the majority of the so-called doctors were ice-men, dentists, peripatetic venders of patent medicine, Jewish peddlers, etc.; in a few cases certificates were printed purporting to have just been given by persons who had for years lain in the grave. In every instance where the name of a reputable living person appeared, the latter repudiated the testimonial, and several had never even heard of the product.

Only recently, in a public vehicle, a well known patent-medicine promoter was heard to boast of the forgeries that are committed by persons of his ilk, adding that the medical profession were so apathetic that in eighty-five cases out of a hundred they would not take any steps toward vindicating themselves even should such a notice come under their observation, which it was very unlikely to do because, as he added naively, they never read patent-medicine advertisements.

Thus, grave suspicion should attach to all testimonials connected with proprietary and patent nostrums. It is possible that some may be the expressions of *bona fide* practitioners, obtained for a consideration, which of course renders them utterly valueless; but the majority are apt to be eulogia written in the business manager's sanctum, signed with the names of imaginary persons, or of real persons so "transmogrified" by initials or spelling as to be without the pale of the law. An illustration of how such testimonials are secured is given by the *Medical Press and Circular*. A licentiate of the Royal College of Surgeons, Ireland, allowed his name to be used by a proprietary nostrum firm, for which he was forthwith brought to book by his college, and, being recalcitrant and impertinent, was deprived of his diploma. After a couple of years the plea was made that though he had foolishly allowed his name to be appended to these testimonials, he had in fact

never written a line of them, and that the experiences related therein were the product of an expansive imagination existing in the proprietor's sanctum. At the same time an action was instituted by the delinquent against the proprietor, for the loss of his diploma; which suit, however, could not be maintained, because to the misuse of his name the complainant had been a consenting party.

We fully believe, with our trans-Atlantic contemporaries, that the great majority of testimonials used to exploit patent and proprietary remedies are wholly spurious; and it is a matter of surprise to us that medical men, who are supposed to be among the most advanced in education and intelligence, will allow themselves to be hoodwinked by the specious greed of proprietors and agents, and moreover consent to act as catspaws to the most disreputable calling on earth, to the end of lining the pockets of shrewd sharpers, too dishonest to succeed in any legitimate effort, and too low in the grades of crime, and too cowardly, to take up the more reputable trade of highway robbery.

"HUGH WYNNE, FREE QUAKER."

The *Century* Company had accepted for publication this new novel by Doctor S. Weir Mitchell, to be issued in book form the latter part of this year; in fact, a large edition had been printed, and even advance orders solicited and received from the trade. But when the strength of the story was discovered, and its probable drawing power as a serial gauged, the editors and publishers decided to suppress the book for a year, and employ the material first in the *Century Magazine*.

Those who have read the story acknowledge it is a masterpiece, and not only the best work that has emanated from the pen of this distinguished author, but one of the really great American stories.

Doctor Mitchell has so saturated himself with the essential particulars of the time in which the plot is laid, as to fairly believe in and speak of it with the familiarity of an eye-witness. He appears to have made a careful study of the customs, dress, sports, etc., of Revolutionary days, and the manners of the interesting social groups which formed the society of Philadelphia from 1753 to 1783,

and also to have studied all the historical persons who are brought into the book.

The character of Washington is drawn in a singularly lifelike way, and the contrasting sides of his character interestingly set forth. By favor of the Historical Society of Philadelphia the author was given access to the great collections of family letters stored in its vaults, and the novel consequently is historically accurate in every particular. While the hero himself and those who take the most prominent parts in the book are entirely fictitious, the use of real persons as side characters renders the work peculiarly realistic.

TESTICULAR INJECTIONS.

As a result of his announcements in regard to this form of therapy, that most eminent scientist, the late Doctor Brown-Séquard, had heaped upon him an amount of opprobrium almost incalculable; even yet the slurs are being bandied. But recently, in the *American Medico-Surgical Bulletin*, Doctor Pierce presented a report of results obtained in forty cases by no less an individual than S. Weir Mitchell—cases which included sclerotic-cord diseases, paralysis agitans, and neurasthenia. Of sixteen cases of ataxia, eleven seemed to have been stimulated to at least temporary improvement; in five, no result was obtained; in some, improvement in muscular strength and co-ordination was noticeable; in four there was very marked increase in sexual power.

Doctor Mitchell declares that it is most evident, as the result of these experiments, that "the action of testicular juice is chiefly that of general stimulation;" and he believes this mode of therapy may prove useful in locomotor ataxia, owing to the sense of comfort or "well-being" that is afforded, relieving the painful crises, and stimulating sexual function.

If the foregoing is to be accepted, it only affords another evidence of the idiotic way in which the medical profession at large, like a flock of sheep, follow any self-elected leader over the first fence, only to break away and follow the next leader who offers something novel or new. In fact, medicine at the present day appears to be little but a succession of fads, the motto of which is "up to date," a term that is responsible for more evil

than any that has ever been employed in connection with this science. After following Brown-Séguard, and without critical study of his theory, the mass of the profession rushed after the next new idea, and as vigorously reviled as it had before praised this celebrated savant.

NEW MEDICAL JOURNALS.

The members of the medical profession in Scotland, and Scottish Alumni resident elsewhere, have founded a journal in which Scottish work and teaching shall be more fully represented than hitherto. This new 96-page octavo publication is to be a monthly, to make its first appearance in January, and the intent is to lay before readers representative work not alone from Edinburgh, Glasgow, Aberdeen, St. Andrews, and Dundee, but also from the country districts of Scotland, where much that is valuable is done, and has heretofore in great part been lost to the profession. The title will be *The Scottish Medical and Surgical Journal*; it will be published under the more immediate direction of Doctors Simpson, Annandale, Bell, Clouston, Wylie, and Underhill, of Edinburgh; Stevenson and Hamilton of Aberdeen; and Miller of Dundee. William Russell, M.D., F.R.C.P. (Ed.), will be the editor.

Canada has at last given evidence of being permeated with the medical-journal craze. Not long since the *Medical Review* was started, and now the *Kingston Medical Quarterly* has appeared. Doubtless the fact that Toronto journals are largely perverted to the exploiting of personalities and the airing of local enmities, has had something to do with the advent of the new periodical.

GRATUITOUS ADVERTISING.

Several of our exchanges complain that a certain medical school is sending out a circular letter to medical journals calling attention to its advantages and requesting that the same be exploited gratuitously. This is true not only of one school, but of a number; likewise of many other institutions. In fact, such procedure seems to be one of the manias of the day, inasmuch as every nostrum-manu-

facturer, as well as the directors of medical schools as a class, insist upon a certain amount of free advertising, and the evil instead of growing better is rapidly becoming worse; it really constitutes a species of *black-mail*.

The fault lies chiefly with the medical press, as does also the remedy. So long as editors and publishers will continue to gratuitously exploit nostrums, medical colleges, sanitariums, summer resorts, and enterprises of all kinds, legitimate and illegitimate, in their reading columns, just so long will demands for continuation and increase multiply. The text of every medical publication is supposed to be solely in the best interests of the profession, and consequently to embody nothing but truth; but as a matter of fact, many editors pay no attention to the material that goes into their columns, which is too often furnished solely by advertisers and others seeking notoriety. The principle of "reading notices" is pernicious, and has worked incalculable harm to the medical profession; and to young men just starting out in life, who are inclined to view all medical literature as infallible, the publication of such trash is simply an outrage. When the conjoined professions of medicine and letters so forget themselves as to exploit untruths, they stultify themselves and their journals, dragging medical journalism deeper and deeper into the mire. The editor has no right to give the pages devoted to text to reading notices, no matter how legitimate the article advertised may be, for the text is the property of the readers, made so by their subscriptions: the advertising pages alone belong to the advertisers.

Still more disreputable are those men who wantonly and wilfully puff all sorts of nostrums editorially in order to secure advertising. But this is by no means an uncommon procedure, and it is little wonder that the laity insist that medicine is a *trade* and not a profession, and so resort to all forms of charlatanism. If honest medical journalism will, as claimed, prove fatal to a number of periodicals, medicine will gain thereby, and no one will repine—such literature possesses no real value, and detracts from the reputation of legitimate publications.

EDITORIAL NOTES.

Doctor Squibb's Misfortune.—

It is with great regret we learn that Doctor Edward R. Squibb, of Brooklyn, to whom the medical profession has in the past owed so much, was recently obliged to submit to amputation of his left hand in consequence of an affection which threatened blood-poisoning. The anæsthetic was administered by his own hand. Doctor Squibb seven years since passed the allotted limit of three-score and ten, but is yet active and interested in all that pertains to medicine and medical science, and it is to be hoped that he will be spared to us for many years to come. It is with profound sorrow that we hear of his affliction, which is really a sequel to severe injuries received thirty years ago from the explosion of a vessel of ether.

Rhus Toxicodendron in Muscular Rheumatism.—

Doctor A. L. Benedict, of Buffalo, New York, especially recommends the treatment of muscular rheumatism by this drug, either in connection with, or without, bromide of potassium. His experience "proves the drug is excellent both for relieving and eradicating this troublesome ailment," though it is not a panacea; he has never observed any poisoning from the therapeutic use of the fluid extract, though he knows of one individual who was seriously affected with a typical dermatitis resulting from the external use of the liquid preparation of the plant prescribed by a homœopath.

Strange Remedy.—

The *British Medical Journal* reports as a "curious fact" that cow-dung is still used in some parts of England as a poultice in case of abscess of the breast.

And, by the way, it is an extremely efficacious poultice, in spite of its inherent nastiness.

Sextuplets.—

A case is recorded by Vassali, in the *British Gynecological Journal*, in which the woman, a native of Italy, gave birth to six children, four males and two females. There was but a single placenta.

Items and News.**Music and Animals.—**

A gentleman who was a finished musician resided some years ago at Darmstadt, and kept a dog which was the terror of all the singers and instrumentalists in the place, for it had the fatal habit of raising its face to heaven and howling whenever a false note was emitted. It never made a mistake, and well known singers were said to tremble when they saw their unwelcome judge seated by his master's side at concerts or at the opera, "Max" was no respecter of persons, and when the singing was but a shade out he would attract the attention of the whole audience to it with a terrific howl. One tenor went so far as to refuse to sing unless the dog was removed; but "Max" was so great a favorite with the public that the singer might as well have requested to have the director himself removed from the stalls, and so was obliged to give in with as good a grace as possible. The dog's master stated that he had trained him when he was quite a puppy, and by the time he was three years old the dog was as good a judge as his master of a false note.—*St. Louis Medical Review*.

Latin Not Ambiguous.—

A society of archæologists held a meeting at a village inn in Shropshire. At dinner a large fruit-pie was produced. "What is it made of?" asked a visitor. "Blaeberries, sir," said the first waiter. "Blueberries, sir," said the second. "Whinberries," said the pretty running maid. "Bilberries," said Professor Babington. "Whortleberries," said another botanist. "Huckleberries," said an American visitor. Here the first waiter in despair came to the most learned-looking of the guests and said: "Sir, they say you are a good herbalist; what is the correct name of these berries?" "*Vaccinium myrtillus*," was the answer.

And yet there are some people who insist that prescriptions should be written in English.—*Scientific American*.

Lucium.—

This substance derived from monazite sand, one that will not form insoluble compounds with sodium or potassium sulphate, recently announced as a new element by M. P. Barrière, is after all open to suspicion, it seems. Mr. Crookes, who experimented with a solution of so-called *Lucium* nitrate, and with a larger quantity of precipitated oxalate, both supplied by Barrière, writes the *Chem-*

ical News that the results obtained are convincing that the claim of lucium to form one of the chemical elements is not justified. The results obtained by spectrum observations indicate that lucium is not even *Erbium*, as its discoverer first thought, but merely impure *Yttrium*.

The Ideal Medical Journal.—

The ideal medical journal is one not controlled by a clique, and not published in the interest of a medical school or of a faction; it should be independent, not a partisan publication. Original articles should be published and a fair price paid the authors. The publishing of the proceedings of medical societies is of doubtful propriety; we all grow weary in seeing so much trash. The editors should be leaders in reforms; should be aggressive, not negative, individuals.—WILMER BRINTON, in *Maryland Medical Journal*.

The Roentgen Rays Surpassed.—

It is announced from both Paris and Vienna that Professor De Syke has discovered a ray possessed of far greater penetrating power than that of Roentgen. It is even said that photographs have been taken through a mass of iron eight inches in thickness, and that other substances opaque to the X rays offer very slight obstruction to the passage of this new form of radiation.

Human Life Lengthening.—

A German statistician has calculated that of every 1000 persons 100 reach the age of 75, thirty-eight the age of 85, and only two reach 95. In the seventeenth century the average duration of life was only thirteen years; in the eighteenth, twenty; in this century it is thirty-six.—*Medical News*.

Swelled Head.—

The *American Poultry Advocate* informs its readers that "when chickens evince obliquity of vision or mope around," etc., they are "troubled with swelled head and finally die."

The same malady seems to affect unfeathered bipeds as well, though unfortunately it is not usually fatal.

A Savage Criticism.—

It is told of women missionaries who went to Uganda that the king was so struck by their fashionable attire that he observed that they probably put all their food in their sleeves, since there was plenty of room for it there and none at all in their waists.—*Times and Register*.

Book Reviews.

INFALLIBLE LOGIC. By Thomas D. Hawley. Sheep; 8vo; pp. 639. Price, \$5.00. Published by the Author, Chicago.

This is the most original volume that has appeared upon our table for many a day, and, coming as it does from the pen of one of the foremost of the Chicago bar, is entitled to careful and thoughtful consideration. It is, indeed, a system of logic based upon the principles of mathematics, the applying of the methods of which is lucidly described in such a manner—it is claimed—that the reader can solve any problem, whether simple or complex, with a result as infallible as that of a problem in arithmetic or algebra. Upon the reasonable hypothesis that the solution of any proposition is inherent in the data thereof, and by the free use of letters, numbers, algebraic formulæ and diagrams, the author lays down certain rules by which it would appear that all other systems of logic must eventually be superseded. The plan is automatic, almost mechanical, yet susceptible of almost infinite application.

This work is intended primarily for the use of lawyers, clergymen, teachers, and medical men, and will be found a valuable aid in thought-processes.

REFERENCE BOOK OF PRACTICAL THERAPEUTICS. By Frank P. Foster. Cloth; 8vo; pp. 500. Price, \$5.00. Appleton & Co., New York.

This work is to be complete in two volumes, and is pre-eminently designed for the daily wants of the medical practitioner. The authors of the various articles have been selected in consequence of definite fitness to deal with the special subjects assigned them. All therapeutic measures are treated of, including baths, exercise, massage, electricity, etc., etc.

The work, as the title implies, is purely one of reference in applied therapeutics, and has the special advantage of being arranged alphabetically after the manner of a lexicon or encyclopedia; hence the reader can turn instantly to the latest and most reliable information concerning remedies, the indications and contra-indications for their employment, the adjusting of doses to varying conditions, etc. All the different preparations official to Great Britain, Germany, France and America are mentioned with the degree of consideration each one demands. In addition is an index of diseases that is full and specific.

UNDER THREE FLAGS. By Bert L. Taylor and Alvin T. Thoits. Cloth; 12mo; pp. 343. Price, \$1.25. Rand, McNally & Co., Chicago.

A story of mystery which begins in a rural village of New England with a supposed murder, of which no less than four different parties are suspected. The scene is suddenly transferred to New

York and given a certain amount of local coloring, and ultimately carried to Cuba. The chief hero seems to be a newspaper correspondent with a decided tendency to "private inquiry"—indeed, he is apparently capable of discounting the most able detectives in the world.

While the story is quite interesting, it is very crude and bears evidence of having emanated from the reporter's pen rather than from that of the trained author. Some of the teachings, too, which include the breaking of laws, violation of international courtesy, etc., cannot be other than pernicious. The Three Flags are those of Spain, the United States, and the would-be republic of Cuba.

DISEASES OF THE MALE URETHRA. By R. W. Stewart, M.D., M.R.C.S. Cloth; 8vo; pp. 221. Price, \$2.50. William Wood & Co., New York.

The subject with which this work deals is placed before the reader in as concise a form as is consistent with its proper elucidation, and, where necessary to facilitate the understanding of the phenomena of urethral disease, the pertinent anatomical and physiological points are fully considered. Pathology is a very prominent feature of the work—so much so that the reader is made acquainted with many of the more obscure phenomena of chronic urethritis. The chapters devoted to inflammatory diseases of the glands which communicate with the urethra, and those which deal with stricture, are especially commendable. The conservative way in which the volume is written certainly is to be commended, and the result is a work which cannot fail to be a safe and most welcome guide in the treatment of a very troublesome class of affections.

KARMA. By Paul Carus. Crape paper tied in silk. Price, 75 cents. The Open Court Publishing Co., Chicago.

This story of early Buddhism is not alone a gem, but the most fascinating volume of the year, and typographically unique as a publication; it is an artistic gem of Oriental printing and engraving, all of which was done in Japan by native artists. There is nothing in the shape of a holiday book on the market that so strongly appeals to the intelligent and cultivated reader as does this volume. Soon after its first appearance in the *Open Court*, "Karma" was translated into Russian and many of the Oriental tongues. Of it Count Tolstoi says: "I read out this tale to children, and they liked it. And amongst grown-up people its reading always gave rise to conversation about the gravest problems of life."

TWENTIETH CENTURY PRACTICE. Edited by Thomas L. Stedman. Volume VII. Cloth; 8vo; pp. 796. Price, \$5.00. William Wood & Co., New York.

This is the volume that should have preceded Volume VIII, and presents such authors as Charles W. Allen, Jules Comby, Charles G. Cumston, Er-

nest W. Cushing, James M. French, E. F. Ingals, E. Main, Franz Riegall, Alfred Stengel, and Herbert B. Whitney.

The first part of the volume is devoted to "Diseases of the Pleura;" then follow "Asthma," "Hay Fever," "Diseases of the Mediastinum," "Diseases of the Diaphragm," "Diseases of the Blood," "Rachitis," "Disorders of Menstruation," "Functional Diseases of the Male Sexual Organs," and "Chemistry and Microscopical Examination of Urine."

The volume is very complete and interesting, and well sustains the reputation which the earlier numbers have won for this series.

OCEANIC ICHTHYOLOGY. By George Brown Goode, Ph.D., LL.D., and Tarleton H. Bean, M.D., M.S. Two volumes; 4to; pp. 553 and 244. Government Printing Office, Washington.

These are special bulletins issued by the Smithsonian Institution. The first volume deals with "Deep Sea and Pelagic Fishes of the World," being based chiefly upon the collection made by the steamers *Blake*, *Albatross*, and *Fish-Hawk*, in the North-west Atlantic. It is a volume of the utmost value to naturalists, especially ichthyologists, and deals with a number of new as well as numerous very rare species regarding which very little information has hitherto been afforded. It is impossible to give a proper review of a volume of this kind, since it is both a text and reference book.

The second volume is an atlas with representations of the different species, there being altogether 417 figures delineated, all drawn from nature.

ANATOMICAL ATLAS OF OBSTETRICAL DIAGNOSIS AND TREATMENT. By Oscar Schaeffer, M.D. Cloth; 12mo; pp. 234. Price, \$3.00. William Wood & Co., New York.

This volume points out how and why the process of pregnancy, the mechanism of labor, etc., are to be explained by the morphological conditions, and from these are deduced the points utilized in diagnosis. Then follows anatomical discussion of the pathologically altered sexual organs, with the changes they produce on the course of pregnancy and labor, etc.; then in turn the diagnostic points, with indications for treatment. Only established doctrines are formulated, and where two views clash they are decided from personal observation.

The book is illustrated by 145 engravings upon fifty-six plates, and forms a most valuable addition to obstetrical literature.

ANNUAL REPORT OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION FOR 1893. Cloth; 8vo; pp. 795. The Government Printing Office, Washington.

This is another one of the voluminous reports of the United States National Museum, and is not only very complete but very valuable. Part I deals with the report of the Secretary. Part II describes and

illustrates collections in the United States National Museum. Among the notable papers appearing in Part II are "The Poisonous Snakes of North America;" "Chinese Games;" "Onyx Marbles;" "Cow Birds;" "Primitive American Armor;" "Weapons and Wings of Birds;" "Ethnology of Thibet."

ROENTGEN RAYS, AND PHENOMENA OF THE ANODE AND CATHODE. By Edward P. Thompson, M.E., E.E. Cloth; 8vo; pp. 190. Price, \$1.50. D. Van Nostrand Co., New York.

This work deals with principles, applications, and theories, and is finely illustrated by sixty diagrams and forty-five half-tone plates. It is not only a complete *résumé* of all that is known regarding skiagraphy, but an excellent working volume or text-book which will afford all information needed by those desiring to experiment. The author has, in fact, covered every step in the history and experimentation of the Roentgen rays up to date.

A MONOGRAPH OF DISEASES OF THE NOSE AND THROAT. By George H. Quay, M.D. Cloth; 12mo; pp. 214. Price, \$1.25. Boericke & Tafel, Philadelphia.

This is an exceedingly handy and concise manual, well adapted to the needs of the student and general practitioner. It is the outcome of experience in general practice supplemented by several years of exclusively rhinological, laryngological, and otological work, and presents all that is absolutely essential to the homœopathic physician in the management of the diseases of the upper respiratory and auditory tracts.

DISEASES OF THE STOMACH. By Max Einhorn, M.D. Cloth; 12mo; pp. 478. Price, \$2.00. William Wood & Co., New York.

The advances in knowledge of gastric affections, as well as the newer mechanical means of treatment, have for some time demanded a new text-book that would be available alike to student and practitioner; and this volume is the outcome. In it, subjects have been considered from a practical standpoint, and special attention paid to diet and therapeutics. It is a work that will excite profound interest in the study of the class of diseases of which it treats.

THE PRINCIPLES OF THEORETICAL CHEMISTRY. By Ira Remsen. Cloth; 12mo; pp. 326. Price, \$2.00. Lea Brothers & Co., Philadelphia and New York.

This is a brief treatise on those facts and speculations that are especially related to the constitution of chemical compounds, and is calculated more particularly to aid students in obtaining clear ideas in regard to the foundations of chemistry. The fact that this volume is in its third edition is evidence that it meets an urgent home demand, while its reputation beyond the sea has resulted in German and Italian translations.

THE YOUTH'S COMPANION. Price, 5 cents; \$1.75 per year. Perry Mason & Co., Boston.

Among the many brilliant features by which the *Companion* will signalize its seventy-first year are papers upon the conduct of the Government—the Inauguration of Presidents, Selection of the Cabinet, Seating of the New Congress, and Powers and Duties of High Officials. Among the contributors are Secretary Herbert, Postmaster-General Wilson, Senator Lodge, and Speaker Reed. Three novelists who at present fill the public eye—Ian Maclaren, Rudyard Kipling, and Stephen Crane—will contribute some of their strongest works. Practical affairs and popular interests will be treated by Andrew Carnegie, Theodore Roosevelt, Lyman Abbott, Lillian Nordica, Carl Schurz, Charles Dudley Warner, Mrs. Burton Harrison, and a hundred other famous men and women.

Four fascinating serials, more than two hundred stories, and ten times as many sketches and anecdotes, will be printed during the coming year, and we are assured by the publishers all departments will be maintained at the same high standard which has made the *Companion's* name a synonym of accuracy. New subscribers will not alone receive the balance of the issue for the present year, but also the *Companion's* four-page Calendar lithographed in twelve colors, which is the most expensive color production ever offered by any publisher.

SCRIBNER'S MAGAZINE. Price, 25 cents; \$3.00 per year. Charles Scribner's Sons, New York.

The coming year will be a red-letter one in the history of this magazine. Charles Dana Gibson will present a series of illustrated articles on "London;" "Soldiers of Fortune" is the title of a novel from the pen of Richard Harding Davis; also will appear the "Story of a Play," by W. D. Howells, which is pledged to surpass any of his former works of fiction. George W. Cable will again appear with a series of four short stories.

A beautifully illustrated series of articles will be offered under the title of "Conduct of Great Businesses," which will include among others a description of the management of great department stores, of great hotels, of banks, of large manufactories, etc. The alumni of various American colleges will write of "Undergraduate Life." Other papers of great interest will be "Japan and China Since the War;" "The Unquiet Sex"—which will deal with women and women's reforms; "How to Travel Wisely," which will describe both ocean and land travel and the ways and methods of those who are "globe-trotters."

Thus it will be seen that *Scribner's* for the coming year will fairly excel itself in all that is of interest to the domestic circle.

THE AMERICAN GEOLOGIST. Price, 35 cents; \$3.50 per year. The Geological Publishing Company, Minneapolis.

In the December number, C. A. White contributes a "Biographical Sketch of Fielding Bradford Meek," with portrait. "Stratigraphy at Slate's Springs, with some Further Notes on the Relation of the Golden Gate Series to the Knoxville," is by H. W. Fairbanks; "The Galena and Maquoketa Series" (I), by F. W. Sardeson; "Origin of the High Terrace Deposits of the Monongahela River," by I. C. White; "Evidence of the Former Extension of

Glacial Action on the West Coast of Greenland, and in Labrador and Baffin Land," by G. H. Barton. There are the usual departments.

THE BADMINTON MAGAZINE. Price, 30 cents; \$3.50 per year. Longmans, Green & Co., New York.

The December number contains: "Sleggett Court; or, Hunting in South Yorkshire," by Harold Wild; "On Elephant Back," by Gustav Spinka; "Colt-hunting in the New Forest," by Lord Arthur Cecil; "Games at Eton," by F. B. Elliot; "Racing in 1896," by Alfred E. T. Watson; "In the Grey Morning," by E. L. Arnold; "Betting," by Norwood Young; "Winter Sports in Friesland," by Julia Scott-Moncrief; "Pilgrim," by Westminster; "Imported," by C. W. Neville-Rolfe; Notes by "Rapi-er." The illustrations are by G. H. Jalland, Stanley Berkeley, N. J. Gibb, Anthony De Bree, Lancelot Speed, and F. S. Wilson.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; \$1.00 per year. The Home Science Publishing Company, Boston.

Contents of the Christmas number: "The Great Markets of the World," by Mabel B. Caffin; "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and S. Maria Elliott; "The Little Mothers' School Kitchen in the Tenements," by Etta M. Hudders; "The Kitchen Garden in Relation to the Public School," by Annie P. Bull; "Catering for Schools," by S. J. Marland; "The Servant Question," by Mary M. Hapgood; "A Few Mistakes," by Alice A. Smith; Editorials, Book Reviews, etc.

DONAHOE'S MAGAZINE. Price, 25 cents; \$2.00 per year. Donahoe's Magazine Co., Boston.

The Christmas *Donahoe's* contains electoral topics and other subjects of general interest, which are discussed from varying standpoints. Denis O'Callaghan describes the recent "Irish Race Convention," "Election Ethics Past and Present" is by J. J. O'Shea; Marie D. Walsh writes of "A City on a Hill," and Mary F. Nixon of the "Last Sigh of the Moor;" "Christmas in Florida" is by W. M. Connell, "Utterances of Campaign Leaders" by H. N. Cary. There are the usual departments and verse.

GODEY'S MAGAZINE. Price, 10 cents; \$1.00 per year. The Godey Company, New York.

The chief articles in the January number are: "Winter in the American Snow Lands," by Edgar M. Smith; "Modes and Manners of Seventy Years," by Grace E. Drew; "The Many Inventions of Hy. Mayer," by V. Robard; "Elsbeth," by Carrie H. Latta; "The Revolt of Martha Scott," by Idah M. Strobridge; "Old English Keys," by Marie C. Corbin; "The Turkish Bath," by Emma P. Telford; "The Fading of the Glory," by C. Heverin. There are the usual departments.

THE AMERICAN NATURALIST. Price, 35 cents; \$4.00 per year. The Edwards & Docker Co., Philadelphia.

Contents for December: "The Biologic Origin of Mental Variety," by Herbert Nichols; "Piney

Branch (D. C.) Quarry Workshop and its Implements" (continued), by Thomas Wilson; "Fossils and Fossilization" (continued), by L. P. Gratacap; "The Geographical Distribution of Batrachia and Reptilia in North America" (continued), by E. D. Cope; "Editor's Table;" "Recent Literature;" "Recent Books and Pamphlets;" General Notes on Petrography, Botany, Zoölogy, Entomology, Psychology, Proceedings of Scientific Societies, Scientific News.

REVIEW OF REVIEWS. Price, 25 cents; \$2.50 per year. Review of Reviews Co., New York.

The matters of chief interest in the December issue are: "Estimates of the Year's Output of Literature," by H. W. Mabie, Albert B. Hart, Ripley Hitchcock, and others; "The Polychrome Bible," by C. H. Levy; "The Kindergarten Age," by Hezekiah Butterworth; "Child Study in the Training of Teachers," by E. A. Kirkpatrick; "The Shortcomings and Opportunities of Sunday Schools," by W. E. Harvey. There are likewise the usual departments.

THE MIDLAND MONTHLY. Price, 15 cents; \$1.50 per year. Johnson Brigham, Des Moines, Iowa.

Contents for December: "On Foot in Egypt and Palestine," by N. Tjernagel; "Grant's Life in the West, and His Mississippi Valley Campaigns" (VI-IX), by J. W. Emerson; "Glimpses of Pompeii and Vesuvius," by James Hetzel; "Christmas Fifty Years Ago," by Albina M. Letts; "A Tale of the Reservation," by Sue O'Bannon Porter; "The Young Homesteaders" (VIII), by F. W. Calkins; "Lincoln and Douglas."

THE ECLECTIC. Price, 45 cents; \$5.00 per year. E. R. Pelton, New York.

The *Eclectic* for the month contains "The Old Order Changeth," by Julia Wedgewood; "William Morris," by Mackenzie Bell; "John Gibson Lockhart;" "Trafalgar and To-day," by H. W. Wilson; "Yosemite Memories," by William Gleadell; "The Social Philosophy of Charity Organization," by J. A. Hobson; and "Faithful Views of the Arch Enemy."

THE BRITISH GYNÆCOLOGICAL JOURNAL. John Bale & Sons, London.

In the November issue H. McNaughton Jones writes of "A Clinical and Pathological Summary of Deciduoma Malignum;" H. Bellamy Gardner of "The Use of Anæsthesia in Obstetric Practice." There is a summary of the meeting of the British Gynæcological Society July 9th and October 8th; also a summary of Gynæcology, including Obstetrics; Reviews; and Reports of Meetings.

THE AMERICAN ANTHROPOLOGIST. Price, 25 cents; \$2.00 per year. The Anthropological Society, Washington, D. C.

The November number contains a paper on "Pacific Coast Shells from Prehistoric Tusayan Pueblos," by J. Walter Fewks; "The Eskimo and the Written Language," by Charles Hallock; and "The Beginning of Marriage," by W. J. McGee. There are also the usual departments, reviews, etc.

Therapeutic Brevities.

Helonias.—Doctor Kopp states this drug has first a congestive action upon the sexual organs of women, while secondarily an atonic condition results. It is available in prolapse of the uterus from lack of elasticity of the uterine ligaments, and in prolapse with ulceration of the cervix and discharge of dark and stinking blood. Pruritus of the vagina and vulva finds in it a serviceable remedy,—this pruritus is a frequent accompaniment of cervical ulceration with a white and disagreeable-smelling leucorrhœa and discharge of blood upon slight exertion. In such cases the drug may not only be administered internally, but may also be used as a vaginal irrigation—thirty drops of the tincture of helonias to a pint of water. Again, where the menses are suppressed and there are symptoms of congestion of the kidneys with albuminuria, helonias will be found of value; also during the climacteric where there is a feeling of weakness and pressure in the region of the sacrum, possibly joined with prolapse of the uterus and associated with a sensation of great weakness and melancholy. Profuse hæmorrhages during this period of life, accompanied by profuse leucorrhœa and violent pains in the uterus and ovaries, also point to helonias as a remedy. A threatening miscarriage dependent upon atony may be prevented by the use of this drug. In cases of sterility with weakened sexual powers and desires, it is worthy of trial.—*Homœopathische Monatsblätter*.

Indiscriminate Use of Cocaine.—The topical use of cocaine is always attended with danger; serious consequences more frequently follow its use in the deep urethra, nares, or the gums, than when injected into the body or at the extremities. At no time is a solution of high percentage necessary, and the percentage should always be known. Many dentists use cocaine in a very reckless manner, without regard to dosage; they take no account of its constitutional effect, only thinking of its local action. Three cases of cocaine poisoning within the past five months occurred in the service of two prominent dentists. In one, on inquiry, the percentage was not known—possibly ten or twenty, he said; he just took some crystals, added water, and injected a few drops into the upper gum over a canine tooth—poisonous symptoms were noticeable in less than three minutes, the collapse was severe, and only by energetic measures was the patient's life saved. In both of the other cases a ten-per-cent. solu-

tion was used, but the degree of poisoning was not alarming in one instance, while in the other it was exceedingly so. A very prominent dentist declared he frequently applied the pure crystal to the exposed nerve. This is a very dangerous method of using a powerful poison. None of the active alkaloïds should be used except in a solution of known strength, and then not in any indefinite quantity.—*Canadian Practitioner*.

Puerperal Convulsions.—I use veratrum viride, the green tincture exclusively; it rarely causes sickness or nausea. I give it in large and small doses, according to circumstances, always in water, one to four drachms in one-half or one-third of a goblet of water, sweetened, one drachm every ten minutes until the convulsions cease, then extend the intervals to thirty minutes, forty-five minutes, one, two, three or four hours, according to circumstances. If there is much depression, I give stimulants at intervals between convulsions. If the case is severe I sometimes give a hypodermatic injection of five, ten or twenty drops with one drachm of warm water, instead of giving by the mouth; I like the hypodermatic use of it, and it is safe beyond a peradventure. After one has become acquainted with its effects, I know of no other remedy that can take its place in this frightful disease. In septic cases hot vaginal washes may be needed, but veratrum is my main reliance in convulsions either before, during, or after confinement, and I have used it for more than thirty years without a single fatal case. Doctor Love has also made use of veratrum for over thirty years, and not lost a patient from childbed convulsions in that period, though he reports twenty-four cases. One of his patients had eighteen convulsions before they were arrested by the veratrum.—A. B. WHITNEY, in *Eclectic Medical Journal*.

Care of Teeth of Children.—Begin early with the deciduous teeth and aim to keep them constantly under care. The parents should be instructed to send their children to the dentist at least once every six months. Except in rare instances, deciduous teeth should not be extracted until absorption has been completed and nature has practically thrown them off, or, failing to do so, demands assistance; it is well known that in the alveolar ridge, as in a stone arch, the removal of one part allows the rest to fall in, and that when a tooth has been prematurely extracted there is less room for the eruption of the permanent one—the incoming tooth

not only has to overcome this difficulty, but is also deprived of the nourishment it should receive in the decalcification going on about it. The deciduous teeth are not very sensitive until about the fourth year, when decalcification begins, after which the roots have jagged, sharp points, which may be a source of trouble. Mothers should be advised of these facts so that they may restrain their children from crushing hard substances in the mouth. Nuts and cheap candies are very injurious in this respect.—*Dental Digest*.

Dangers of Kola.—Kola has been taken up by people who would never enslave themselves to rum or opium, because it is announced as a stimulant without reaction. That is the sheerest nonsense. There must be reaction from the exhilaration of any stimulant. The first effect of kola is hardly noticeable; the man who takes it simply feels refreshed, but after eight or ten hours the heart's action is increased enormously; then, later, in the habitual kola drinker or eater, there is the lassitude, the nervous weakness and the tremulousness that ensue from over-drinking; the difference is that with kola the reaction comes on more gradually. The wise bicyclist will let kola in all its forms severely alone. It is in the insidiousness of the drug that the danger lies. It does away with the fatigue that a long bicycle ride brings, but before long it comes to be relied upon, when the development of the slavery is easy. The important point for the public to bear in mind is that kola is not harmless, but must be used with the same caution as opium or morphine.—*Pharmaceutical Products*.

The Use of Sage.—In years gone by, an infusion of the leaves of sage (*Salvia officinalis*) was highly appreciated in certain parts of Europe as a means of combating the night sweats of phthisical patients, but its use has now given place to that of atropine, agaricine, and other modern anti-sudorifics. According to Krahn, the oblivion into which sage has fallen is undeserved, for in some thirty-eight cases of hyperidrosis in which he employed this remedy, success rewarded his experiment in all but two. Most of his patients were tuberculous, but some of them were suffering from articular rheumatism, leukæmia, and typhoid fever. In eighteen of the cases the excessive perspiration forthwith disappeared, and in the remainder the effects were markedly favorable. He prescribed the sage at first in the form of an infusion containing about forty grains of

leaves to a pint of boiling water, of which the patient took a cupful three times a day, but he found subsequently that the tincture was more active.—*Medical Press and Circular*.

Ear Troubles in Children.—To relieve and cure most cases of earache, my practice for many years has been to drop into the ear a drop or two of a solution of atropine, one or two grains to the ounce of water, or of a good fluid extract belladonna. It seldom fails.

In running from the ear of infants and children I first syringe the ear clean with warm water, dry well by mopping out the meatus with a flock of absorbent cotton wrapped around a probe; then, through an ordinary tubular speculum, introduce very finely powdered boric acid, packing on the drum gently, and then slowly withdrawing the speculum. I continue putting in boric acid and packing until the meatus is about half filled, then fill the remainder of the canal with cotton or wool. After a few days I remove the packing with a syringe, and if necessary repeat the process until a cure is effected.—JOSEPH ADOLPHUS.

Pruritus Ani.—Sufferers from pruritus ani are usually either arthritic or nervous.

℞ Menthol, 4 parts.
Alcohol, 30 parts.
Distilled water, 60 parts.
Dilute acetic acid, 150 parts.

For external use only.

℞ Carbolic acid, 5 parts.
Hydrated potassa, 2 parts.
Linseed oil, 30 parts.
Bergamot oil, 9½ parts.

Apply at bedtime.

In very severe cases deep cauterization of the parts with nitrate of silver or the thermocautery may be employed. Section of the nerves gives good results in pruritus of the anus, vulva, and scrotum, when the affection is very intense.—CUMSTON, in *Annals of Gynecology and Pædiatry*.

Fracture of Coccyx.—Fracture of the coccyx is a frequent result of falls in which the weight is thrown upon the buttocks; it is an injury, however, which is frequently overlooked. The symptoms, being simply pain and tenderness, are generally disregarded by the patient. Displacements and deviations usually ensue. Many of these cases are followed by unusual secondary effects upon the

system, of a severity totally out of keeping with the apparently trivial nature of the fracture. These symptoms are oftentimes regarded by the patient as a manifestation of obscure spinal disease, and the worry and anxiety brought on from the self-made diagnosis results in various manifestations of general nervousness and hysteria.

Excision of the bone is to be recommended.—*Langsdale's Lancet.*

Oil as a Hair Tonic.—A common cause of alopecia is, the scalp is washed too often and thus lacks oil. Many races oil the hair, and such are seldom bald. Some animals also, as, for example, birds, which possess neither sebaceous nor sebaceous glands, have a gland which secretes an oily substance which protects the feathers from the action of water. The product of sebaceous glands is remarkably rich in fat, and possesses a notably small amount of water. The falling of a certain number of hairs is a physiological phenomenon. I am of the opinion that the application of oil would be beneficial to most persons, and it is suggested that the rubbing into the scalp of a pomade or other fatty substance be made part of the daily toilet, the pomade to carry with it some antiseptic substance.—FOURNIER.

Belladonna.—In order to obtain the desired effect from belladonna, very small doses should be given at frequent intervals. When given in this manner in fevers or hypodermatically in cholera infantum and pernicious intermittent fevers, it proves a most valuable remedy. As a stimulant to the respiratory nerve-centres it has a place in pneumonia, and in enuresis it gives excellent results if the doses are increased until a toxic effect is obtained. This is also true in the treatment of pertussis with belladonna. To augment peristalsis, it should be used in suspected faecal or mechanical obstruction of the bowel. In the so-called spurious hydrocephalus it is beneficial in maintaining cerebral vitality. It may be employed to avert coma in typhoid fever after Cheyne-Stokes respiration.—*American Medical Review.*

Ingrown Toe-nail.—At the recent meeting of the American Orthopædic Association in Buffalo, Doctor H. L. Taylor exhibited a simple device for bloodless treatment of ingrown toe-nail. The nail-edge is lifted away from the irritated granulations by means of a hook bent from a strip of silver about one inch long, three-sixteenths of an inch wide,

and one one-hundredth of an inch thick; the edge of the nail rests on the hooked extremity, while the shank of the hook curves over the side of the toe and is held in place by a turn of adhesive plaster. Cases even of long standing, when properly managed, yield to this treatment in a few weeks.—*North American Practitioner.*

A Pleasant Aperient.—Make a strong decoction of Alexandrian senna; a few aromatics should also be added, and the cooking done rather slowly. When removed from the fire and while still hot, add as many best French prunes as required, seeing to it that all are covered by the fluid, also making due allowance for absorption by the fruit. Having macerated sufficiently long, remove and drain the prunes, and pack in a close-covered salt-mouth jar. One or two prunes eaten just at bed-time, or in the morning before breakfast, will keep the bowels regular. Children take this medicated fruit with avidity.—*Georgia Eclectic Medical Journal.*

Witch Hazel for Burns.—Apply to the raw surfaces of the burns pledgets of cotton dipped in the extract. There appears to be sufficient astringency to do away with fungosities, and some portion of the hamamelis dries into the ulcer. Normal granulations immediately form underneath, and as these become firm and substantial the hamamelis comes off, leaving a good, firm, new skin, which rapidly grows in area and thickness. The entire dorsum of a hand that was burned was completely covered in the course of ten days.—*British Medical Journal.*

Cajuput Oil in Pneumonia.—Taken internally, cajuput oil acts as a good diffusible stimulant, sudorific, and antispasmodic, but none of the text-books say a word of its expectorant action and efficacy in pneumonia. Some months ago I tested its effect in eighteen cases. The ordinary dose used was five minims of the essential oil, either made into emulsion or shaken with water, repeated every four hours; and to suit particular cases I combined it with quinine and tinctures of nux vomica and cardamom compound.—RAM DHARI SINHA, in *Indian Lancet.*

Calomel Treatment of Hemorrhoids.—Akerblom treats hemorrhoids, large and small, internal and external, with an ointment composed of one part of calomel to nine parts of

vaselin, and states he has in this way many times avoided surgical interference. In most instances the itching subsides completely. The suggestion is made that the calomel is changed into corrosive sublimate and acts as a caustic, and consequently should be used with caution if there is ulceration.—*Therapeutische Wochenschrift*.

The Corset and Chlorosis.—Meinert has found that the use of the corset by girls entering the period of puberty is the causal factor in producing chlorosis. The corset displaces the stomach and intestines to such an extent as to interfere with digestion as well as to cause irritation of the solar plexus. He records a case where the stomach was displaced two inches below the umbilicus, which recovered in eighteen months after stopping the use of stays.—*Journal of Clinical Diagnosis*.

Local Anæsthetic.—

Chloroform, 12 parts.
Tincture aconite, 12 parts.
Tincture capsicum, 4 parts.
Tincture pyrethrum, 2 parts.
Oil of cloves, 2 parts.
Gum camphor, 2 parts.

Dissolve the camphor in the chloroform, add the oil of cloves, and lastly the tinctures.

This is credited with almost magical local anæsthetic effect.—*Medical World*.

Croup and Diphtheria.—Mix equal parts of expressed juice of ripe pokeberries and alcohol, and give ten drops in a teaspoonful of water every thirty minutes.

I have used this ever since 1875, and never lost a case of spasmodic or membranous croup or diphtheria, and have had but very little trouble with them. I control the fever with aconite, gelsemium, or ipecac, as indicated.—DR. RILEY, in *Eclectic Medical Journal*.

Ringworm of Scalp.—

B Corrosive sublimate, 10 grains.
Peru balsam, 3 drachms.
Oil of lavender, 1 drachm.
Alcohol, enough to make 1 ounce.

This has been found to act well at the Randall's Island Infant Asylum, but, naturally, can be applied to a patch of limited extent only!—DOCTOR ALLEN, in *Pediatrics*.

Rheumatoid Arthritis.—The remedies most of service are, in order of enumeration: Sali-

cin; quinine salicylate; iodine; iron iodide; colchicum; cimicifuga; viburnum; hydrastine; nux vomica; sumbul; hypophosphites. Another remedy, which because of its mode of application does not come properly within this list, is the blister.—*The Lancet* (London).

Use of Catheter.—In retention from any cause, compare the meatus with your catheters. When you have determined upon the size which promises to pass, make your first endeavors with two sizes larger. The greatest possible safety lies in always using the largest possible catheter.—VALENTINE, in *Medical Record*.

Catarrh of Bladder.—Permanganate of potash, two grains to a quart of warm water, is most efficacious in septic catarrh for washing out the bladder. Use twice daily, always being careful to avoid overdistention. Remember many bladders would be overdistended by the use of a quart of water.—*Omaha Clinic*.

Hay Fever.—Sabadilla is reported as an almost perfect specific in this malady.—*Medical Summary*.

[We hope it may be true, but must confess to a vast amount of skepticism.—ED.]

Asthma.—Syrup hydriodic acid is of especial service in many forms of this malady, given in doses of from one-half to a full drachm, in water, three to six times daily.—*Southern Medical Record*.

Urine in Eczema and Carbuncle.—Examine the urine for sugar in all cases of carbuncle, and in all cases of eczema, especially eczema of the genitals.—*Exchange*.

Persistent Headache.—Relief may usually be obtained by ingesting one grain of calomel every morning for a week or ten days.—CARPENTER.

Iritis.—It is claimed that *Grindelia robusta* applied locally and likewise given internally will effectually relieve iritis.—*Medical World*.

Gastric Ulcer.—One drop of Fowler's solution, repeated as required, will relieve both pain and vomiting.—BARTHOLOW.

Medical Progress.

EFFECT OF WEARING VEILS.—Although we hear, and occasionally read, of the ill-effects produced by veils upon the eyesight, very little has been done in the way of determining the exact degree of interference with vision which these ornamental and occasionally useful protectors bring about. The fact that the wearing of veils is productive of weak eyesight, headaches, and sometimes vertigo and nausea, is within the experience of every ophthalmologist. Not only are these effects produced by the eye-strain consequent upon the added efforts made by one or both eyes to see through or around an obstruction, but the irregular figuring on the veil itself is, in some instances, a source of annoyance. As in other cases of abuse, the burden rests heaviest upon the weakest eyes, and probably the reason why one encounters so comparatively few instances of asthenopia directly due to veil-wearing is that the embarrassed eyes are able to overcome the additional strain where the vision is normal, the oculo-muscular system in proper equilibrium, and the general health good.

A dozen persons were selected for the purpose of demonstrating the extent to which veils of various kinds influenced the eyesight, and the results warrant the following conclusions:

Every description of veil affects more or less the ability to see distinctly, both at a distance and near at hand:

The most objectionable kind is the dotted veil, although the influence of this variety for evil is more marked in some samples than in others:

Other things being equal, in undotted and unfigured veils, vision is interfered with in direct proportion to the number of meshes to the square inch:

The texture of the veil plays an important part in the amount and kind of eye-strain produced by the veil; when the sides of the mesh are single, compact threads, the eye is embarrassed very much less in its effort to distinguish objects than when double threads are employed:

The least objectionable veil is that without dots, sprays, or other figures, but with large regular meshes made with single, compact threads.

It is not a necessary consequence of the wearing of veils that eye symptoms should result, for a healthy eye in a healthy body resists the strain of an impediment to vision just as it does other deleterious agents; and

it is only when from other causes the eyesight is weakened that the wearing of an objectionable veil proves immediately and obviously hurtful. I have noted many cases of headache and painful vision, as well as other ocular symptoms, produced by veil-wearing in persons whose eyes were not over-strong, and I believe this practice is one of the agents, not perhaps always recognized, that contribute to ocular discomfort; it is not the part of wisdom to compel the visual organs to overcome unnecessary obstacles in the effort to see.

It has been urged in defense of veils, that they are often required for the protection of the face, to keep the hair in order, or to retain the hat in place. If the happiness and comfort of members of the gentler sex are thus bound up in veil-wearing, they should at least give preference to those veils that do the least harm.

But what cause can be urged for that not uncommon offense, the attempt to *read* through this unnatural screen? And yet such exhibitions are of every-day and every-night occurrence in places of public resort—street-cars, railway trains, churches, theatres, concert-halls, club-rooms, etc.—thus adding to the injury of defective distant vision the insult of eye-strain for near work.—CASEY A. WOOD, in *Boston Medical and Surgical Journal*.

THE ABUSE OF SURGERY.—It is true there are certain divisions of surgery which can only be properly understood by those who have paid special attention to them, yet every thoughtful practitioner must be acquainted with instances which make him conclude that abuses exist. There are certain hospital as well as asylum abuses which it seems quite impossible to remove, but some of the grave charges recently made against surgery should no longer have cause for existence. The United States Consul at Havre, Doctor Chancellor, in the *Maryland Medical Journal*, presents some startling figures to prove grave charges made against the French surgeons. He gives authority for estimating that in Paris alone over 40,000 women have been subjected to ovariectomy or hysterectomy since 1883, and that over 50,000 women have submitted to these operations during this time in the whole of France. A talented young French physician says that of 102 women operated on at St. Joseph's Hospital, a portion of all those who survived the operation are in even a more deplorable condition of health than they were before the operation; "the number cured or benefited," he

says, "can be counted on the fingers of one hand." This same authority estimates that not more than four per cent. of the cases operated upon have derived any benefit, and even in this small number the relief in many cases was doubtful. The article concludes with the statement that a large number of these women are operated upon without their own consent and without the knowledge of their friends and relatives.

To be sure, this deplorable condition of things does not exist to anything like this extent in our own country, and yet we have been surprised again and again at the frequency with which these operations are performed for conditions which call for nothing like heroic treatment.—*Journal of Practical Medicine.*

SIMPLE TEST FOR ALBUMEN.—Pour into a test tube an inch of urine; with a dropper drop carefully upon the surface half its quantity of alcohol. If albumen be present in the urine, a white line will form between the two fluids, the same as in the cold nitric-acid test.

Another method is to put the alcohol in the test tube first, and drop, as before, the urine into it. If albumen be present in the urine, it will be made known by a white wave following the urine as it sinks to the bottom of the test tube. The urine, being heavier than the alcohol, will gravitate to the bottom of the tube very quickly. After a small quantity of urine has been added the alcohol will become opaque with the coagulated albumen. This test, which can be employed at the bedside, is so sensitive that the one-hundredth part of one per cent. of albumen, when present in the urine, can be detected. Mucus will be coagulated if present, and may be mistaken for albumen, but filtering before testing will eliminate this. No other ingredient of abnormal urine will give any trouble, more than when any other method for testing urine is employed. Alcohol, if of the strength of sixty per cent. when clear, will answer every purpose, excepting that of delicacy. A glass tumbler may be used when it is impossible to obtain a test tube.—**TRUAX**, before the New York State Medical Association.

FUNCTION OF THE APPENDIX VERMIFORMIS.—It is now understood that many organs formerly looked upon as rudimentary and functionless are really part of the hæmatopoietic system; thus, the tonsils, which were so freely excised in the past, are now considered the guardians of the parts below, pro-

tecting them from the invasion of pathogenic organisms. A noteworthy example of a supposed functionless organ is the appendix vermiformis, but the numerous follicles of the appendix indicate clearly that it possesses glandular action. Probably its chief function is as an automatic closer of the ileo-cæcal valve, thus preventing the regurgitation of foul gases. A study of the vital statistics of the Brooklyn Board of Health for the past fifteen years shows a steady increase in the death rate from appendicitis and allied diseases, from which it is fair to infer that medicine has not kept pace with surgery in the treatment of these disorders. It is probable the trouble is to be found in improper treatment at their inception, the medical man of the present day throwing up his hands and unconditionally surrendering the patient to the operating surgeon. The intelligent and cautious use of mild purgatives and enemas, and above all the bold use of opium, will, I feel confident, make a better showing in the treatment of appendicitis.—**NORTH**, in *Charlotte Medical Journal*.

PROPRIETARY REMEDIES.—Little by little the drug stores are being transformed into simple warehouses for already prepared medicines, and in many places the druggist has seldom to compound a prescription, all the drugs ordered being already put up in bottles or boxes. When a formula is thought out by an educated physician and compounded by a competent druggist, we have some guarantee that the product will be what it claims to be; but when we use drugs already put up by some foreign manufacturer, there is no guarantee of their genuineness, and the physician can never be certain what his patient is taking. But even with the best guarantee we cannot make an already prepared remedy fit every case; patients have idiosyncrasies which must be met intelligently, and no drug nor any set combination of drugs will benefit every case of anæmia, of tuberculosis, or of dyspepsia. Patent medicines and proprietary articles should be left to the vulgar crowd, to those opinionated individuals who think they can dispense with the services of a physician and treat their own maladies.—**CARMONA**, before the Pan-American Medical Congress.

INFLUENCE OF THE VAGUS ON URINARY SECRETION.—Faradization of the peripheral end of the vagus in the neck arrests the flow of urine; this is not, however, obtained if the

animal is first atropinized. The arrest is probably due simply to the action of the vagus upon the heart and circulation, and not to any vaso-motor fibres going from it to the kidney; if these existed, they would not be paralyzed by the small dose of atropine which obviates the action of the vagus upon the heart. All the observed facts may be explained by the variations in the aortic pressure. Stimulation of the central end of the vagus is found usually to increase the flow of urine, though there is often no effect. This, again, is probably due to rise of blood-pressure, and is related to the polyuria following puncture of the fourth ventricle. It is doubtful if the vagus exercises any secretory influence on the kidneys.—WALRAVENS, in *Archives Italiennes de Biologie*.

CAUSES OF CHRONIC CONSTIPATION.—Lack of tone in the muscular coat of the intestines, causing a decrease in peristalsis, usually due to imperfect regional innervation: Deficient secretion or excessive absorption,—people leading sedentary lives are predisposed to constipation. The symptoms (excepting in cases due to organic disease) are loss of appetite, imperfect digestion, nausea, headache, irritability, mental depression, bad complexion, acne, sleeplessness. Hysteria in the female and hypochondria in the male have been often caused by constipation, and it is even stated that a condition of disease bordering upon insanity may be brought about by a long-continued defective formation of fæces and imperfect action of the bowel. Moreover, the material which should have been removed will accumulate in the blood, and in consequence such diseases as gout, rheumatism, etc., may be developed.—*New York Medical Times*.

TERTIARY SYPHILIS IN A YOUNG CHILD.—A child aged five was brought to me for a sore in the nostrils, which examination disclosed to be syphilitic, with destruction of the nasal septum, the palate, and the posterior part of the pharynx, the teeth shaped like the teeth of a saw, and other unmistakable lesions. The father accompanying the child was a strong, healthy man, who had two healthy grown daughters, all free from any syphilitic taint. The mother had died a year after the birth of this child, and the father had before this had grave reasons for doubting his paternity, although he might have been infected while at nurse in the country. The case is remarkable for the rapidity with which

the disease had developed unrecognized to the tertiary stage, and the fact that it had progressed without attention or causing much annoyance.—FEULARD, in *Annales de Dermatologie*.

VICARIOUS MENSTRUATION.—Oswiemcinski observed a rare form of vicarious menstruation, where a female, menstruating first in her eighteenth year, married at the age of twenty-four. After a childless marriage of ten years her husband died. Three months before his death her menses disappeared for the first time, while at the same time a colossal swelling of the right mammary gland appeared; a large quantity of colostrum could be pressed out. At the same time there were pains in the breast which radiated into the arm. These symptoms lasted for three days and gradually disappeared, to reappear every month in place of the regular menses. The left breast was unaffected. Oswiemcinski observed this peculiar phenomenon six times.—*Wiener Medizinische Presse*.

A CORONER ON TOTAL ABSTINENCE.—At an inquest in Birmingham, on November 27, Mr. Pemberton, the City Coroner, in his remarks, pointed to a specially illustrious victim, as he held, of imprudent abstinence. This was Sir Benjamin Ward Richardson. Mr. Pemberton said he knew Sir Benjamin well, and felt that his total abstinence for twenty years had shortened his life. Having regard to the climate of England and the work that he did, he would have benefited by the moderate use of alcohol. This is carrying the war into the adversary's camp with a vengeance, for there was no more uncompromising foe to alcohol, in every form, than the deceased physician.—*Food and Sanitation*.

FŒTUS KILLED BY TYPHOID FEVER.—Etienne examined a five months' fœtus, which had been delivered from a girl aged eighteen, on the twenty-ninth day after typhoid fever had declared itself in the mother. The child's spleen and intestines, as well as other organs, showed no evidence of the disease, and the placenta was healthy. Blood from the right side of the heart, and from the spleen, liver and placenta was carefully examined, and cultures were made. The typhoid bacillus was found in abundance. The fœtus had really died of typical acute blood-poisoning before the occurrence of any local change.—*Gazette Hebdomadaire de Médecine et de Chirurgie*.

OVARIOTOMY PER RECTUM DURING LABOR: DEATH.—During labor the foetal head was arrested by a dermoid tumor of the right ovary. By means of forceps the head was brought to the outlet, when the tumor bulging through the anus burst the rectal wall. The tumor having been evacuated of its contents, the foetus was easily extracted; it was already dead. Lastly, the cyst was drawn down and amputated, the rectal wall being carefully sewed up. Bad flooding occurred during the expulsion of the placenta. The patient died in thirty-three hours, of pelvic peritonitis.—SEVITSKY, in *Annales de Gynécologie et de Obstétrique*.

CARDIAC MURMURS.—A continuous cardiac murmur of unaltered force is probably organic, and is to be regarded as such unless proved to be the contrary.

A murmur which appears and disappears, without any discoverable cause, or from an unimportant cause, is to be held inorganic, if tricuspid insufficiency or mitral stenosis be absent, for this may occur in these two diseases.

All murmurs that disappear completely, or are decidedly modified, by a change in the patient's position, are inorganic.—POTAIN, in *Hospitals-Tidende*.

EARLY DIAGNOSIS OF INTESTINAL PERFORATION.—It is possible to diagnose perforation of the intestine before peritonitis has appeared. On auscultating the abdomen, if perforation has occurred, one will hear distinctly the heart sounds and the vesicular pulmonary murmur; this is due to the presence of gas in the abdominal cavity. But a still more important sign is the alteration of the pulse: at the beginning of the perforation this becomes accelerated, but after a few hours slows down materially.—GLUZINSKI, in *La Semaine Médicale*.

SUTURE OF ARTERIAL WALLS.—During an operation for cancer of the breast, Heidenhain unluckily cut away a piece of the wall of the axillary artery. He immediately compressed the vessel above and below, closed the orifice temporarily by hæmostatic forceps, sutured the lips of the wound with catgut, applying endothelium to endothelium, then removed the forceps. The patient recovered without secondary hæmorrhage, and with the function of the arm intact.—*Gazette des Hôpitaux*.

ANENT CATHETERS.—The old-fashioned block-tin catheter is too valuable an instrument to go into disuse. It may be bent to any desired curve, and will often pass a prostatic obstruction which disputes the right of way with all the soft instruments at our disposal. This catheter is far safer than the woven instrument with stylet, because it can be sterilized by boiling and its curve can be more accurately set.—*International Journal of Surgery*.

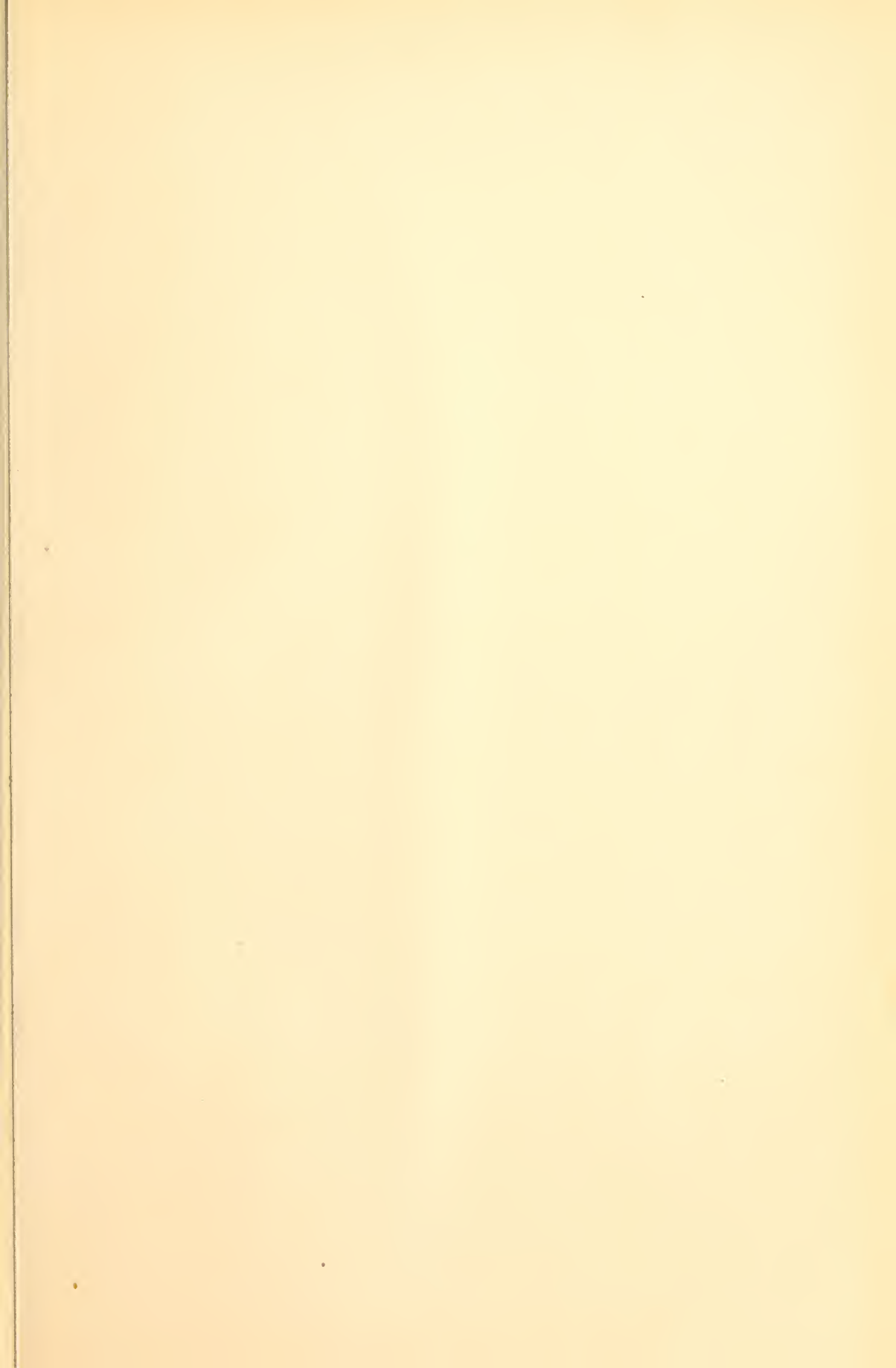
FIBROMA MOLLUSCUM OF LABIUM.—An unusually large tumor of this kind grew from the right labium majus of a woman aged thirty-seven; it had existed for at least nine years, beginning as a swelling, which for a time advanced very slowly, but latterly, as is the case with most growths, it advanced rapidly, so that it reached to the knee. It caused little or no pain, was successfully removed, and weighed over fifteen pounds.—HOLZMAN.

THE STOMACH DURING SLEEP.—Examinations of contents of the stomach obtained in sleep evidence that acidity is greater during this period, and motility lessened. Persons with digestive trouble, therefore, especially with hyperacidity, should not sleep immediately after eating. Instead, the meal should be followed by wakeful repose.—SCHULE, in *Berliner Klinische Wochenschrift*.

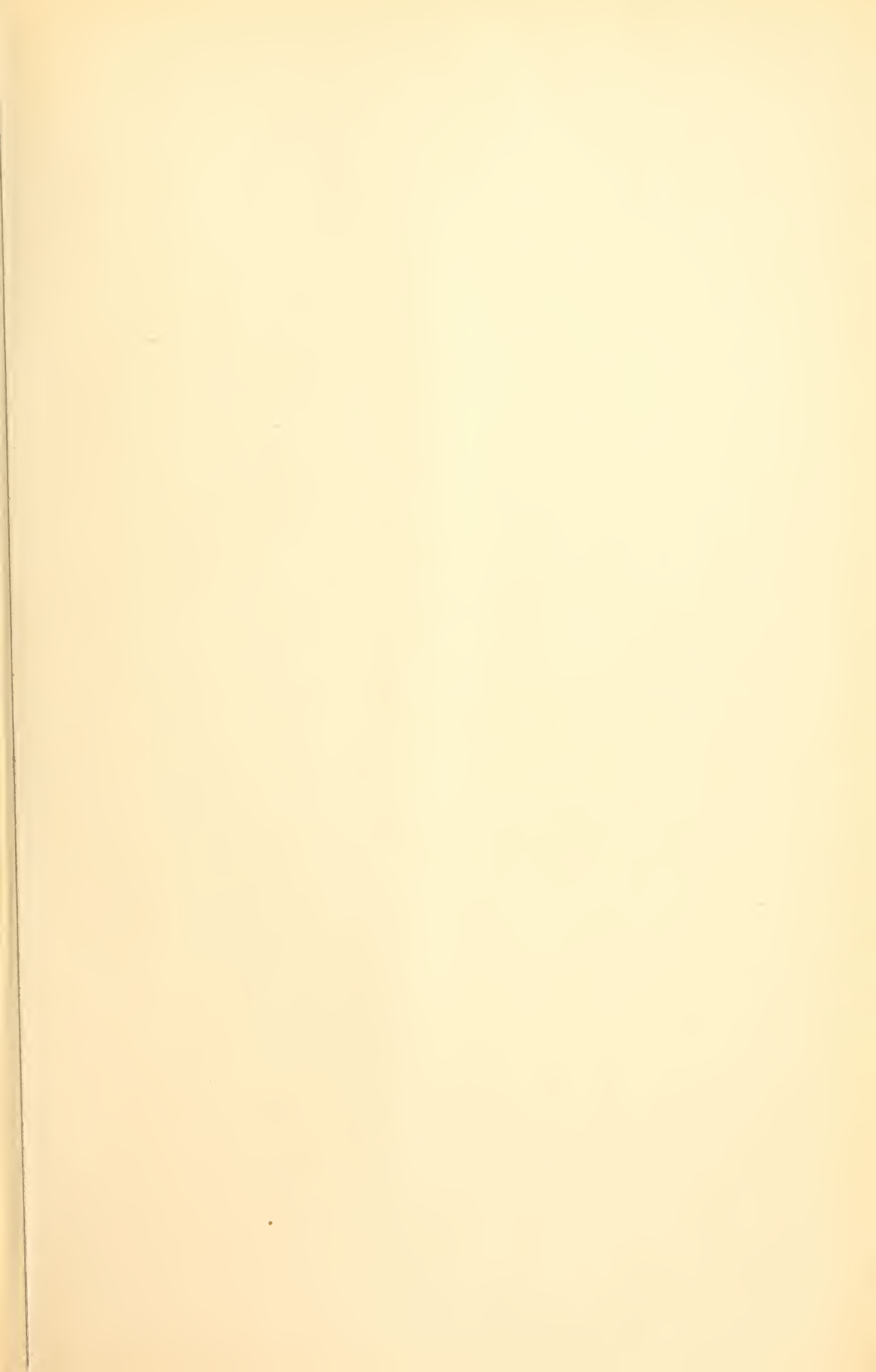
SMALLPOX IN THE GERMAN ARMY.—Only two soldiers in the immense German Army have died from smallpox since 1873, owing to the strictness with which vaccination is enforced. During the Franco-German war the Germans lost only three hundred, compared with a French loss of 23,400 men, from smallpox.—*Sanitary Record*.

RUPTURE OF THE KIDNEY.—Toland recently reported a case of rupture of the right kidney in a young man of nineteen years, who had been "charged and kneed" by an opponent while playing football.—*Medical Record*.

THE BICYCLE AND STRICTURE.—Urethral stricture may follow the congestion caused by riding a badly fitting bicycle-saddle.—*Cincinnati Lancet-Clinic*.









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